Outside Insight

One simple idea may transform New York’s subway system
Departments

President’s Perspective ........ 4
On Campus .................... 5
Etc. ............................ 13
Athletics ........................ 14
First Person ................... 38

Features

17 Why Do We Make Bad Decisions?
Darby Proctor, assistant professor of psychology, ponders big questions by studying the behavior and decision-making of nonhuman primates, focusing on chimpanzees, spider monkeys and lemurs.

18 Aviation Apex
Huntley Lawrence ’85, director of aviation for the Port Authority of New York and New Jersey, is leading one of the busiest airport systems in the world at a transformational time.

20 Outside Insight
Craig Avedisian ’84 is not a transportation engineer, but his simple solution to the MTA Genius Transit Challenge may transform New York’s subway system.

26 Talent Pipeline
For four decades, Continental Shelf Associates has found top talent among Florida Tech graduates.

GO GREEN, GET ONLINE!
www.fit.edu/florida-tech-today
Florida Tech conferred more than 1,200 degrees on students from the U.S. and around the world on May 5 at the spring commencement ceremonies. The undergraduate ceremony, held in the morning, featured 542 students, while the afternoon graduate ceremony included 443 students. Graduates hailed from 38 states and 70 countries, the highest number of countries represented in commencement in Florida Tech’s 60-year history.

Florida Tech Today is printed on Sustainable Forestry Initiative (SFI)® certified paper.
Dear Alumni and Friends,

As I travel the world meeting our alumni, I’m regularly impressed by their passion and their achievement. Their commitment to making their communities, and their world, a better place is truly inspirational.

This issue of Florida Tech Today captures some of those stories. From the New York subway system to the depths of the ocean, and all things in between, our students are leading the way. These alumni are living, breathing, walking and talking examples of our three core values at Florida Tech: research to benefit all humankind; student success for a lifetime; and good global citizenship. This is the heart of who we are as a university, and what we believe to be important.

I’m sometimes asked what is my favorite part of being a university president, and it’s always an easy answer. Commencement is such a truly meaningful experience for me, as I have the privilege of shaking hands with each newly-minted alum. Students leave Florida Tech equipped to make positive difference in their world, and commencement is the ceremony where we celebrate their accomplishments and bestow upon them an important charge: go make the world a better place than you found it.

It doesn’t get any better than that.

Sincerely,

Dwayne McCay, Ph.D.
President

President Dwayne McCay was prominently featured in the March 8 edition of The Korea Times newspaper. He was interviewed during a visit to Seoul, where he is continuing Florida Tech’s partnership with the International Education Exchange Association to enhance efforts centered on Korean students.

President Dwayne McCay with Florida Tech Women’s Rowing Coach Adam Thorstad at the Dad Vail Regatta.

President Dwayne McCay shakes hands with Florida Tech’s Women’s Rowing Varsity Four Heavy Weight team who took home gold at the Dad Vail Regatta.
Showcasing Innovative Ideas

With more than 100 projects capturing the power, complexity and elegance of STEM, the Northrop Grumman Engineering & Science Student Design Showcase in April offered tough choices for the industry professionals who had to pick the best entries.

The judges from Northrop Grumman said they were impressed by the quality of the students’ work and their ability to find innovative solutions to real-world challenges.

The five most prestigious awards handed out after the showcase were the President’s Cup awards, the Engineering Champion and Science Champion “best in show” awards from Northrop Grumman, and the Outstanding Award in Design and Innovation. Additionally, Best in Show winners were named in each academic category.
ON CAMPUS

GLOBAL GUSTO
Florida Institute of Technology is among the top universities in the world, joining Harvard, Imperial College in London, Ecole Polytechnique Federale de Lausanne in Switzerland and fewer than 800 other institutions of higher education in the 2018 RUR World University Ranking.

Enriching Research

SPAWNING WILD BONEFISH
A team led by Florida Tech’s JONATHAN SHENKER and Paul Wills of Harbor Branch Oceanographic Institute has for the first time successfully induced spawning of wild bonefish and hatched the fertilized eggs into larvae as part of the Bonefish Restoration Research Project. Bonefish are integral to Florida’s travel and tourism industry. It is estimated that bonefish, tarpon and other species in the ‘flats fishery’ contribute more than $465 million annually to the economy in the Florida Keys.

Honoring Trustees Emeriti
Three distinguished board members—Raymond Armstrong, Richard (Dick) Baney and John (Jack) Hartley—have been named trustees emeriti.

Armstrong was named to the board in 1984. He is the former chief of surgery for Holmes Regional Medical Center and a community leader who over the years has worked with Rotary, the Chamber of Commerce of South Brevard, the American Cancer Society and many other groups and organizations. Prior to his board service, Armstrong served as an athletic advisor to Florida Tech. In 2011, he pledged generously to support the School of Psychology.

Baney was named to the board in 1986. The retired president of Health First Physicians Inc. and an accomplished specialist in internal medicine, Baney joined with Florida Tech trustees Joseph Flammio and Travis Proctor to help establish Sporting Affair and Chopper Dropper as the primary fundraisers for scholarships for student-athletes.

Hartley was named to the board in 1987. He is a distinguished businessman who was elected CEO of Harris Corp. in 1986 and chairman of the board in 1987. He served as CEO until 1995 and was a member of the Harris board from 1976 until his retirement in 2002. A generous benefactor of Florida Tech, the campus now includes the Hartley Room in the student union building and Hartley Hall in Harris Village. He also worked with former Florida Tech President Lynn Weaver to encourage the Olin Foundation to make its transformational investment in Florida Tech. Hartley was awarded an honorary degree in 1994.

“These three men together represent nearly a century of experience serving on our board of trustees, and we all continue to benefit from their wisdom, vision and deep passion for Florida Tech.”

GRANT SUPPORTS SOLAR WIND SCIENCE
JEAN C. PEREZ, assistant professor of physics and space sciences, has been awarded an NSF CAREER program grant in the amount of $747,359 toward his work on the theoretical understanding of the solar wind to support the upcoming Parker Solar Probe mission.
“The Pirates to Panthers Academy offers an opportunity for Palm Bay Magnet High students, and others from around the county, to learn from some of the best professors in the country ... and interact with people from all over the world on our campus. That’s what we’re all about: preparing global citizens for a lifetime of success.” —Dwayne McCay

Dual Enrollment Program Prepares Global Citizens

Florida Tech and Palm Bay Magnet High School have launched Pirates to Panthers Academy, a powerful partnership between two educational institutions that will bring high-quality, hands-on university education to participating high school students as they prepare for careers of the future.

Students admitted to the dual enrollment program can earn up to 36 hours of college credit from Florida Tech at no cost to them. Additional benefits for students include:

• Hands-on, college-level experience in science, engineering, business, aeronautics, psychology and liberal arts while still in high school.
• Enhanced credentials prior to applying for admission to four-year universities.
• Access to stellar faculty and state-of-the-art research and laboratories.
• Guaranteed admission to a Florida Tech degree program if they complete at least six semester credit hours and achieve a cumulative GPA of 3.0 or higher in their courses at Florida Tech.

“At Florida Tech, we give people an opportunity to succeed. This partnership is going to expand that,” President Dwayne McCay said. “The Pirates to Panthers Academy offers an opportunity for Palm Bay Magnet High students, and others from around the county, to learn from some of the best professors in the country, maybe in the world. And it gives them a chance to actually interact with people from all over the world on our campus. That’s what we’re all about: preparing global citizens for a lifetime of success.”

“This is a phenomenal partnership,” added Brevard Public Schools Superintendent Desmond Blackburn, noting the potential positive impact dual-enrollment education can have on students. “That is awesome for FIT to provide that opportunity for our students.”


UNDERSTANDING HOW METALS SOLIDIFY

A fundamental discovery that alters our current understanding of how metals solidify and form crystalline patterns may help lead to better control of casting and welding processes. It also explains how snowflakes and many mineral patterns form naturally. The findings, published in the journal Metals, are the work of Martin Glicksman, research professor in materials science and the Allen Henry Chair, and a colleague, who discovered an energy field affecting all crystallizing substances, which they labeled the bias field.

NEW SHARK SPECIES DISCOVERED

A team of scientists led by Florida Tech’s Toby Daly-Engel has confirmed after decades of uncertainty that sixgill sharks residing in the Atlantic Ocean are a different species than their counterparts in the Indian and Pacific oceans. The new species has a new name: the Atlantic sixgill shark. Using 1,310 base pairs of two mitochondrial genes, Daly-Engel and her colleagues determined there are enough genetic differences between what had long been considered a single species, Hexanchus nakamurai, to rename the Atlantic variety Hexanchus vitulus.
ON CAMPUS

FLORIDA TECH AGAIN NAMED TREE CAMPUS USA

For the fifth straight year, Florida Tech has earned the designation Tree Campus USA.

The Tree Campus USA program honors colleges and universities and their leaders for promoting healthy trees and engaging students and staff in the spirit of conservation.

To obtain this distinction, Florida Tech met the five core standards for sustainable campus forestry required by Tree Campus USA: establishment of a tree advisory committee, evidence of a campus tree-care plan, dedicated annual expenditures for its campus tree program, an Arbor Day observance and the sponsorship of student service-learning projects.

TURNER NAMED FLORIDA ACADEMY OF SCIENCES MEDALLER

Richard Turner, professor emeritus of biological sciences, a respected scholar of Florida invertebrates and a guiding force at the Florida Academy of Sciences, has been awarded the academy’s highest honor: the FAS Medal. Joining George Maul (2016), Terry Dewalt (2010) and John Trefry (2002), Turner is the fourth Florida Tech faculty member to receive one of Florida’s highest academic honors since the academy started awarding the medal in 1963. “It has been an honor to serve science and scientists in Florida through my participation and leadership in the Academy over these 45 years,” Turner said.

NEW FACES OF CIVIL ENGINEERING

The American Society of Civil Engineers (ASCE) has named Florida Tech construction management major Ethan Samberg one of its 2018 New Faces of Civil Engineering. ASCE describes these students, who are selected from universities across North America, as “remarkable college students—young engineers in training whose early achievements mark them for greatness as professionals and point toward an optimistic future for civil engineering.”
Three Named to Board of Trustees

Bobbie Dyer
Division President of Dyer Mortgage Group of Melbourne

Prior to opening Dyer Mortgage Group, Dyer served as branch manager at Wells Fargo Home Mortgage. Known to the Florida Tech community for her support of The Scott Center for Autism Treatment’s Evening of Hope and the university’s athletics fundraiser, A Sporting Affair, she also serves on the boards of the Bridges Foundation, the Health First Foundation and the Kerosene Lamp Foundation.

Debbie Harvey
President/CEO of Ron Jon Surf Shop

Prior to joining Ron Jon in 2000, Harvey served in executive roles at Goody’s, HSN and Bealls Department Stores. She is a past supporter of Florida Tech’s weVENTURE and former member of the Nathan Bisk College of Business Advisory Board.

Alan Prestwood
Senior Vice President of Investments at Wells Fargo Advisors

Prestwood has served as a financial advisor since 1989. He earned a bachelor’s degree in management science and an MBA from Florida Tech, where he later served as vice president and then president of the Florida Tech Alumni Association. In 2014, Prestwood was recognized with the Outstanding Alumni Award for the Nathan Bisk College of Business.

New Leadership for Florida Tech Research

Gisele Bennett, an internationally respected optics researcher, joined Florida Tech in April as senior vice president for research. She previously served as the associate vice president for research faculty integration at Georgia Tech and holds more than 22 years of research experience including 17 years in research administration.

Bennett also served as a Regents’ Researcher for the University System of Georgia, held the Glenn Robinson Chair in Electro-Optics and was a professor in Georgia Tech’s School of Electrical and Computer Engineering. She formerly led a research lab with over $45 million in research funding.

“We are very pleased Dr. Bennett has joined us to lead the research office at Florida Tech,” said President Dwayne McCay. “Florida Tech is an emerging force for its outstanding research and academic programs. We welcome Dr. Bennett’s experience and expertise as we increase our funded research activities.”

Bennett has a strong research funding record from industry, federal and Department of Defense sources. She has over 130 publications in books or book chapters, refereed journals, technical reports and workshops.

She is a member of the Army Science Board, a Fellow in the Optical Society (OSA) and International Society for Optics and Photonics (SPIE) and a senior member of the Institute of Electrical and Electronic Engineers (IEEE). She holds officer positions in OSA and IEEE and serves in a variety of professional activities involving optical engineering research.

She holds bachelor’s and master’s degrees in electrical engineering from the University of Central Florida. She earned her Ph.D. in electrical engineering and Certificate in Management of Technology from Georgia Tech.

Rusovici Named AIAA Associate Fellow

Razvan Rusovici, associate professor of aerospace and biomedical engineering, was named an Associate Fellow of the American Institute of Aeronautics and Astronautics at the group’s SciTech Forum in Kissimmee in December. Associate Fellows are, according to AIAA, “exemplary professionals (recognized) for their accomplishments in engineering or scientific work, outstanding merit and contributions to the art, science or technology of aeronautics or astronautics.” About 2 percent of AIAA members are honored with this distinction.
Panther Dining Hall (PDH) is home to a 240-gallon reef aquarium maintained by Florida Tech’s Oceanography Program and supervised by Professor Kevin B. Johnson.

Under his guidance, a team of oceanography and ocean engineering students, with occasional help from aquaculture and marine biology students, maintain the tank. This spring, the main 8-foot tank was replaced and the entire system revitalized—adding more hard coral and new fish.

The effort took a month in planning and a full day to implement. More than a dozen students studying marine biology, environmental science, oceanography and ocean engineering participated in the project—keeping the livestock stress-free and correctly timing the seawater delivery with the mounting of the new aquarium. Here’s a closer look.

The aquascape is comprised of approximately 240 lbs. of sand and 250 lbs. of rock—much of it generously donated by CaribSea, a leading aquarium supply company.

The fish and invertebrates eat a conglomerate of copepods and other zooplankton, mysid shrimp, flake foods and seaweed or romaine lettuce for the omnivores.
This aquarium is a beacon of what Florida Tech is all about—bringing scientists and engineers from all backgrounds together to tackle big projects.

—Connor Wong, lead aquarist

Maintaining the PDH aquarium takes a great deal of patience and hard work. The staff works Monday through Friday with the occasional weekend shift to clean the tank, feed the fish and invertebrates, monitor the water quality and keep health records on the inhabitants.

Aquarium student-staffers:
Abbey Gering
Oceanography
Julia Martinus
Oceanography
Shannon O’Neil
Ocean Engineering
Connor Wong
Oceanography
Matthew Schelhorn
Ocean Engineering
Jonathan Steffano
Ocean Engineering
Connor Wong
Oceanography

Additional volunteers for the revitalization project:
Xiao Ma, Nayan Mallick, Sean Crowley, Sarah Johnson, Lily Johnson, Austen Zugelter and Melissa Rivera
Meet Travis Rembradt: 2018 Farmer Scholar

Travis Rembradt is the 2018 recipient of Florida Tech’s most prestigious financial award, the Farmer Scholarship.

Rembradt, of Cape Coral, graduated in June from the private Canterbury School in Fort Myers, where he earned a 4.62 weighted GPA and scored 34 out of 36 on his ACT.

Excelling in multiple Advanced Placement courses, including chemistry, calculus and macroeconomics, Rembradt was a member of the National Honor Society, Science National Honor Society and the National English Honor Society.

He won first place awards in several Regional Science Olympiads, played varsity tennis, earned a black belt in Jeet Kune Do at age 14 and volunteered at the Gladiolus Food Pantry in Fort Myers.

The Farmer Scholars program began in 2009, when Phillip W. Farmer, retired chairman, president and CEO of Harris Corp. and past chairman of the Florida Tech board of trustees, donated $1.5 million to establish the endowed scholarship.

The program provides a full, four-year scholarship awarded annually to a Florida resident and high school graduate who is among the top 5 percent of his or her class and demonstrates exceptional academic achievement and outstanding personal character.

Included in the scholarship are all tuition and university fees, a room in Harris Village’s Farmer Hall and the regular university meal plan. Additionally, the Farmer Scholar is given a stipend between the junior and senior years for enrichment through Florida Tech’s summer study abroad program at Oxford University.

Rembradt plans to study chemical engineering, which combines two of his passions. He knew chemistry was his “thing” during his first chemistry class as a high school sophomore, and an AP Chemistry class later became the most interesting course he had ever taken, he said. And from a young age he was fascinated with how things work, disassembling electronics as a kid and later working on projects involving electric cars, hovercrafts, towers, helicopters and robot arms.

“I am interested in applying my knowledge to the field of energy research and development, especially the R&D of solar fuels and biofuels, and from a young age he was fascinated with how things work, disassembling electronics as a kid and later working on projects involving electric cars, hovercrafts, towers, helicopters and robot arms.

“I am interested in applying my knowledge to the field of energy research and development, especially the R&D of solar fuels and biofuels, and from a young age he was fascinated with how things work, disassembling electronics as a kid and later working on projects involving electric cars, hovercrafts, towers, helicopters and robot arms.

“Students at Florida Tech are encouraged to be visionaries, and we look forward to watching Travis flourish here on campus, guided by his own passion and the wisdom of our faculty,” McCay said.

“A BEST VALUE” COLLEGE
Florida Tech is one of the nation’s Best Value Colleges, according to the 3rd annual ranking from Forbes magazine. Featuring just 300 U.S. colleges and universities offering four-year degrees from a total of 650 under consideration, the list is designed to provide students with a snapshot of schools offering the most value for the dollar — “to help students and their families evaluate the likely return on their investment.”

AN EVENING OF HOPE
An Evening of Hope X, held in February, celebrated 10 years of successful fundraising and community support for The Scott Center for Autism Treatment and raised $134,000. Hosted by Mike and Rashmi Shah at their Merritt Island estate, the night honored Ed and Cheryl Scott, whose vision and generous gift led to the founding of The Scott Center, and unveiled new technology that will expand access to autism treatment through virtual reality.
Hometown Pride

The Orlando Melbourne International Airport (MLB), Florida Tech’s hometown airport and home to FIT Aviation, was named among the Top 10 Most Scenic Airport Landings of 2018 by PrivateFly.com. Ranking #1 in the United States and #6 in the world, voters cited MLB’s stunning vistas of the Atlantic Ocean, Indian River Lagoon, beautiful beaches and bridges, and potential to glimpse the Kennedy Space Center complex.

Archery Club

Last fall, a new student club formed on campus, the Florida Tech Archery Club. Alice Buswell, founding president, was a varsity archer on two collegiate teams before joining Florida Tech and a four-year member of the U.S. National Archery Team. Novice and experienced archers can find a place on either Florida Tech’s recreational or competitive teams. The club practices at Wickham Park, placing an emphasis on fun, safety and camaraderie.

We go to a technical college where everything has a conclusion—math has the answer, science has the answer. Philosophy is all about the journey to finding an answer.

Eleanor Mathers, president, FITlosophy, a new philosophy club on campus where students can dive into philosophical discussions in a casual, friendly environment.

U.S. News & World Report recently ranked Melbourne 29th (out of 125 metro areas) in best places to live, based on desirability, value, job market, quality of life and net migration.
A versatile scorer all four years of her Florida Tech career, SARA GRENIER became the first player in women's lacrosse program history to reach the 200-goal milestone. The senior attacker achieved the mark in the Panthers’ victory over Colorado State University-Pueblo on March 30, 2018. Grenier, a 2017 All-American, is also the Crimson & Gray’s all-time leader in points with more than 250 for her career.

Senior forward SAM DANIEL etched his name in two categories of the Florida Tech men’s basketball program record book. The Kingsland, Georgia product recorded a new program single-season record with 97 three-pointers during the 2017–18, besting his own school record of 96 achieved during his junior season in 2016–17. Daniel also ended his career as the all-time leader in three-point field goals made with 247.

Four Florida Tech tennis players have had fabulous four-year careers in the Crimson & Gray uniform and climbed into the Top-3 win leaders in both the men’s and women’s record books. KAYLA HERGOTT has positioned herself No. 2 all-time in women’s singles victories with 77, while teammate ERIN EGOROFF is not far behind with 73 career wins in singles. On the men’s side, ARIA CANADELL (pictured) recently picked up his 69th career singles win to move him into No. 2 all-time, while RICARDO CORONA is tied for third overall with 63 singles victories. Corona is also third on the career doubles list with 64 wins.

Redshirt senior guard JORDAN MAJORS cemented his name in Florida Tech allure as the Hopkinsville, Kentucky native became the all-time leading scorer in the men’s basketball program history with 1,898 career points. He surpassed the previous mark of 1,896 set by Justin Sedlak in 2011. Majors accomplished the feat on his final shot, in his final game in a Panther uniform.
Junior defensive lineman \textbf{ADONIS DAVIS} had a decorated 2017 season for the Florida Tech football team. A native of Columbus, Ohio, Davis collected four All-America selections and was named a First Team All-Gulf South Conference recipient, after setting single-season school records in tackles for loss (19) and sacks (7.5) this season and finishing second on the team with 59 tackles. Davis was named a first team All-America by the Associated Press (AP), a second team All-America by the American Football Coaches Association (AFCA) and a honorable mention All-American by both D2Football.com and the Don Hansen Football Committee.

For the second year in a row, Florida Tech made a statement at the NCAA Division II Swimming Championships. Led by head coach Justin Andrade, the Panther men’s swimming team recorded four Top-5 finishes and collected six All-American honors, including two First Team All-American laurels. Highlighting the Crimson & Gray appearance were two runner-up finishes by junior \textbf{VICTOR ROCHA FURTADO} in the men’s 50 yard freestyle and the 100 yard freestyle, both in school record times.

For the second year in a row, the Florida Tech women’s rowing team won the varsity 8 title at the FIRA Championship. The veteran crew of coxswain \textbf{TAYLOR STONI}, \textbf{NATALIA ARASA BONAVILA}, \textbf{FEDERICA PALA}, \textbf{THERESA GADILHE}, \textbf{ANNA KAYSER GALLEGO}, \textbf{JULIE MCCARTHY}, \textbf{IRINA DJUROVIC}, \textbf{SVETLANA RISTIN} and \textbf{GRAYSEN PENSC} entered the V8 final as the No. 1 seed. The Panthers led the entire way through the 2,000-meter course and repeated as the FIRA champions with a time of 6:36.60, more than four seconds ahead of rival Barry.
FIT HOMECOMING 2018

Thursday, Oct. 11 – Homecoming 5K, Downtown Melbourne
Friday, Oct. 12 – Homecoming Fest, Downtown Melbourne
Saturday, Oct. 13 – Homecoming Gala, Clemente Center
Why do we make bad decisions?

When people make a decision that goes against their self-interests, we classify that as a bad decision. We make these types of decisions for many reasons, including simply making mistakes. However, other types of ‘bad decisions’ seem to be more systematic in humans.

One such systematic bias can be illustrated by a simple economic game. Imagine a researcher walks into a room with two people. The research gives the first person $100 and the second person $1. How would you feel if you were the second person? You would likely be upset and feel you were being treated unfairly. You might even refuse the dollar because of your strong feelings. This is really quite irrational from an economic perspective. A dollar is more than you had before, so why would you turn down free money?

To really understand this bad decision, we need to determine why we evolved to have this bias. To do that, we conduct similar research with our nonhuman primate relatives to see whether or not they share the bias. If they do, then it suggests there was an adaptive reason why we evolved this way. If not, then it may be a quirk of human behavior.

It turns out that when we conduct the same experiment above with monkeys (using food, not money), they behave the same way. Some monkeys even throw the lower value food back at the researcher in a clear sign of displeasure. This tendency to compare your outcomes with the outcomes of others and to protest when you get less is called inequity aversion.

We think inequity aversion coevolved with cooperation. When we cooperate, we need to monitor what other individuals get to make sure they aren’t cheating. If someone cheats, then you should stop cooperating with them. Thus, we tend to see inequity aversion in cooperative species, like humans and capuchin monkeys.

So, the reason we make some bad decisions is that throughout our evolutionary history they were actually good decisions. However, when they are taken out of that evolutionary context and placed in the modern world, they look like bad decisions. Because we are a highly cooperative species, it makes sense to object when we get less than someone else, even if that sometimes means turning down free money.

Darby Proctor is an assistant professor of psychology and program coordinator for the animal behavior concentration in undergraduate psychology. She studies nonhuman primate decision-making, focusing on chimpanzees, spider monkeys and lemurs. She currently collaborates with Brevard Zoo to study its animals.
Huntley Lawrence '85, director of aviation for the Port Authority of New York and New Jersey, stopped by Skurla Hall during a recent visit to campus.
HUNTLEY LAWRENCE ’85 leads one of the busiest airport systems in the world—with revenues of $2.4 billion and a staff of nearly 1,600 aviation professionals. As director of aviation for the Port Authority of New York and New Jersey, he oversees operations at John F. Kennedy International, LaGuardia, Newark Liberty International, Teterboro and Stewart International airports, which in combination served 132.6 million total passengers in 2017. It’s a big job in the midst of big plans.

In addition to managing overall airport operations and the customer experience, Lawrence is leading an ambitious 10-year, $11.6 billion redevelopment initiative aimed at modernizing airport facilities and keeping pace with projected passenger growth in the coming decades. This work includes the $2.72 billion Terminal One Redevelopment Program at Newark Airport, the $8 billion complete renovation of LaGuardia Airport and the JFK Airport Vision Plan. With an additional $10 billion in private sector investment, the capital plan totals more than $20 billion.

Each project is a complex, multiphase endeavor designed to enhance the passenger experience through improved functionality, aesthetics, sustainability and usability. It includes the construction of new terminals, new parking garages, new electrical and fueling infrastructure, repaving runways and addressing airport access.

“The Port Authority’s airport system is one of the region’s greatest economic engines and continues to experience robust and sustained growth,” he said. “Underscoring the importance of the agency’s goals of developing world-class airports, our agency’s $32.2 billion 2017–2026 capital plan sets aside 36 percent in total spending for modernizing and upgrading our facilities.”

Lawrence is well-suited for this challenge. A 32-year veteran of the Port Authority, he started his career as an intern in the aviation department right out of high school. After earning his degree in aviation management from Florida Tech, he returned to the Port Authority, ascending through positions of increasing responsibility before being named deputy director of aviation and, ultimately, director of aviation in 2017.

“I’ve had the good fortune to work at all three of our major airports—JFK, Newark Liberty and LaGuardia—in nearly every division, including operations, security, properties and customer service. Along the way, I’ve gained valuable insights about what works and what’s important, and how best to meet our objectives,” he said.

Lawrence’s interest in aviation started at a young age. He attended the aviation program offered at his elementary school and was able to complete pilot ground school as part of his high school curriculum. At Florida Tech, his interest in management and leadership was sparked.

“There was this whole emerging field in the late ’70s and early ’80s to develop careers in airport management, and I was intrigued by that,” he explained. “You deal with a broad range of issues—legal, commercial, financial. It really runs the gamut. In effect, you’re running an important business enterprise for the benefit of the public.”

He says he appreciates the technical foundation he received at Florida Tech as well as the larger understanding of management, leadership, transportation and intermodalism he gained—skills he continues to use today.

And, his affinity for his alma mater has remained strong.

“If I’m close by, even in Orlando, I like to sneak a peek of campus,” he said, noting the transformation of south campus, where he used to conduct Army ROTC drills on the pistol range and rappelling tower located there, and the WFIT studio, which was in the basement of Roberts Hall when he hosted a weekly radio program as a student.

At Homecoming 2017, Lawrence received the George M. Skurla Outstanding Alumni Award from the College of Aeronautics.

“I am quite humbled by the honor in receiving the Skurla Award,” he said. “I’ve always tried to provide value in every role that I’ve held.”

It’s this value mindset as well as his management expertise and institutional knowledge that distinguish Lawrence’s leadership during this transformational time for the Port Authority.

“Large organizations are tough. Bureaucracy can be frustrating; but at the end of the day, you eventually get it done. I have high expectations for myself and my team, because our customers expect a lot of us,” he said. “Seeing today where we’ve got a lot of support from our board and our governors to rebuild our airports—that really inspires me.”

—Christena Callahan
From the time he first stepped on board an airplane as a 7-year-old, Craig Avedisian ’84 fell in love—first with flying—then with all the other things that keep people and things moving. You could say this Florida Tech grad has an affinity for all things transportation.

“We took a family vacation to Wisconsin and flew there,” Avedisian said. “It kind of blew my mind. I really couldn’t wrap my head around it at 7 years old, but I thought it was the coolest thing that we’d gone so far so fast. So I was hooked with the aviation bug early.”

He went on to earn his private pilot’s certificate at 17, by 19 had a commercial certificate with instrument and multiengine ratings and Certified Flight Instructor certificate, and graduated from Florida Tech in just three years with a degree in air commerce/flight technology. Although he never worked as a commercial pilot—too much autopilot for his tastes—he did remain in the transportation field. After graduation, Avedisian spent 13 weeks bicycling through Europe, before starting a managerial job at a courier business in California. He then went on to become a dock supervisor for a national trucking company and eventually worked with consultants involved in San Francisco’s city planning. When he decided to go to law school, Avedisian began to work with judges at the National Transportation Safety Board who decided enforcement actions brought by the FAA against pilots.

Continued on page 22
Craig Avedisian ’84, an attorney in Manhattan, had a genius idea to increase capacity of the New York City subway system. Photo courtesy of Alex Flynn, alexflynnphoto.com
Now, an attorney in Manhattan, he primarily deals with real estate and commercial cases. However, he uses one of the largest mass transit systems in the world on a daily basis—an aging subway system that struggles to keep up with ever-increasing demand in a booming population. New York’s Metropolitan Transportation Authority (MTA) needed innovative solutions for some large problems on a tight budget, so New York Governor Andrew Cuomo announced the MTA Genius Transit Challenge, a global competition.

With Avedisian’s background in transportation, and his knowledge of the New York City system, it’s no surprise he jumped at the chance to put in his two cents. What is surprising is that he won.

The MTA received 438 submissions from 23 countries, most of which were supplied by large transportation industry conglomerates, not individuals. The task was daunting. There were three phases to the competition, each one narrowing down entries and requiring more submissions.

“Once I made it past Phase One, I had a fair amount of confidence in the idea,” Avedisian said. “If I can prove this works, it can win. All I really didn’t know was what I didn’t know, which can actually be an asset, as people in the industry can often be ‘too close’ to a problem.”

Avedisian’s idea helps increase capacity, without spending a lot of extra money or upgrading with expensive technology. All you have to do is add cars, while stopping those cars at the front and rear of the train at alternating platforms. For example: On a 14-car train, the first four cars and the last four cars take turns stopping at alternating platforms, while the center six cars stop at every platform. Essentially, overshooting and undershooting every stop. Passengers know which cars to board by standing at color-coded areas of the platform. The center cars serve all stations for anyone who prefers or needs that service.

“As I thought more about the idea itself, I realized how huge the increase in capacity was,” Avedisian said. “I figured out there was a compounding effect of using more modern rail cars that increased the capacity as high as 65 percent, instead of just 40–50 percent.”

It all seems so simple, but the process to arrive at such a streamlined result took months of research, phone calls to England and Finland to learn more about their systems and technology, multiple drafts of a 30-page proposal and an interview before the panel of judges for the challenge.

Craig Avedisian’s Award-Winning, Capacity-Expanding MTA Genius Transit Challenge Idea

“If I can prove this works, it can win. All I really didn’t know was what I didn’t know, which can actually be an asset, as people in the industry can often be ‘too close’ to a problem.”

—Craig Avedisian
“When I went into that interview, my first goal was not to embarrass myself,” Avedisian said. “As an outsider, I thought ‘I just want to perform at a [reasonable] level. If I give an average performance for somebody who’s in the industry, I’m going to be happy.’ Of course, I wanted to do better than that, and aimed to do better, but that was the minimum I wanted to achieve. I prepared for three days for that interview.

“I’ll quote Bruce Springsteen: ‘You need confidence, but you need fear too.’ It sounds bizarre, but it’s true. You had to have confidence to enter this contest, but fear is a real driver. It’s an engine. You can’t let it overwhelm you or you lose the confidence, but some amount of fear is healthy. I did not want to screw this up.”

Avedisian had just the right amount of fear and preparation. He was announced as a winner on March 9, eight months since the start of the challenge.

“Certified Genius”

Avedisian had just the right amount of fear and preparation. He was announced as a winner on March 9, eight months since the start of the challenge.

“More than anything else, Avedisian credits his success with the transportation knowledge and experience he has gained over the last 30 years, beginning with Florida Tech.

“My first sense of how to be a professional came at Florida Tech with the pilot training, because it is life and death up there,” Avedisian said. “Aviation concepts are not all that different. Transportation concepts are transportation concepts. I think every job I ever had mattered. I know I had subjective thoughts about virtually every one of them. The law is about persuasion. Scheduling is a big deal with aviation, and it’s an even bigger deal with trains. It all mattered.”

Although a copy of the $330,000 award check will be framed and hung proudly on his wall, this was never about the money. It was about what the check represents.

“If the day comes when I step onto a platform and my idea is implemented, and these giant, 85,000-pound subway cars are doing something different because of my idea, I think that will be the single-most satisfying moment,” Avedisian said.

“Next Stop

This is not the last stop on Avedisian’s journey that began on that family vacation to Wisconsin. He will continue to follow an often unknown route from “Point A” to “Point B,” allowing his curiosity and love for transportation to take him to his next destination.

“What I’m most excited about is that I have some other ideas,” Avedisian said. “I might start doing a little transportation consulting too. That is where my heart is.”

—Jessica Taylor

Say an average subway platform can accommodate a 10-car train. Avedisian’s concept allows for the addition of more cars without changing current infrastructure. The extra cars simply don’t offer passenger access at every platform.

For example, on a 14-car train, the first four cars and the last four cars take turns stopping at alternating platforms, while the center six cars stop at every platform. Essentially, overshooting and undershooting the platform at every stop.

Passengers know which cars to board by standing at color-coded areas of the platform. The center cars serve all stations.
Achieving a perfect steering geometry is critical to fabrication. Steering is enabled by a 20:1 rack and pinion system. Spindles are mounted rigidly to the chassis using a triangulated tubing system. We set the wheels with positive toe (toe-in, or angled slightly inward) to ensure the dragster moves in a straight line down the track.

Programs Involved:
- AE
- ME
- MTH

The design of the front end impacts the performance of the entire vehicle, so it’s critical to get it right. The front end must create down-force to stabilize the dragster, and it’s got to be aerodynamic. We use aerospace-grade composites so that air flows smoothly over the body.

Programs Involved:
- AE
- CHE
- ME
- MTH
- CS

The chassis is the skeleton of the jet dragster, designed to be flexible enough to function as the vehicle’s suspension and rigid enough to handle the forces produced by the engine during acceleration and upon parachute deployment (deceleration). We build every jet dragster chassis to be both lightweight and incredibly strong, allowing them to reach speeds approaching 300 mph while protecting a driver in the case of an impact.

Programs Involved:
- ME
- AE
- MTH
- CS

Several different types of fuel may be used to power a jet dragster: biofuels, diesels, kerosene and jet fuel. Chemical engineers help us determine which fuel will deliver maximum power and efficiency while also promoting environmentally acceptable conditions. Having accurate measurements of different fuels’ burn rates and flow rates help our teams achieve top speeds.

Programs Involved:
- ME
- AE
- CHE
- MTH

The engine is a General Electric J-85-5 from a jet, refurbished and tuned by Larsen Motorsports. To generate thrust, a turbine engine requires two key components: air and fuel. The engine takes in aerodynamically stable air, compresses the air molecules, adds fuel, ignites it and blows the resulting combustion out the exhaust.

Programs Involved:
- AE
- ME
- EE
The engine is a General Electric J-85-5 from a Northrop F-5 fighter jet, refurbished and tuned by Larsen Motorsports. To generate thrust, a turbine engine requires two key components: air and fuel. The engine takes in aerodynamically stable air, compresses the air molecules, adds fuel, ignites it and blows the resulting combustion out the exhaust.

**Programs Involved:**

Rear Wheels

Like the front wheel assembly, a jet dragster’s rear wheels are fixed and rigid, and include no traditional suspension system. All the forces exerted upon the dragster as it accelerates, moves down the track and decelerates must be absorbed by the chassis and the wheels, making design of these components absolutely critical!

**Programs Involved:**

Parachute Cans

A jet dragster cannot use everyday disc brakes to stop because its center of gravity is so far aft, or toward the rear. (Stopping a jet dragster using disc brakes would likely cause it to skid, spin or flip!) The only way to slow down, quickly and safely, is with parachutes. So effective parachute canister design is key. They must carry and protect the parachutes, and release them in a split-second without damaging them.

**Programs Involved:**

Engine Cowlings

Cowlings, or body panels, as well as the decorative paint applied to them, affect a jet dragster’s aerodynamics and may actually mean the difference between fast and super-fast. That’s why we engineer our body panels to fit together virtually seamlessly and use high-end automotive racing paint with strong adhesion, durability and polish, which ensures a smooth laminar flow.

**Programs Involved:**

Business Partners

Each of Larsen Motorsports four race teams operates as a separate business entity, requiring sources of revenue to cover expenses. Student interns often assist in initiating and solidifying relationships with corporate partners and sponsors to obtain funding. Each business team develops and executes a business plan encompassing all aspects of accounting, business development, marketing, education and outreach.

**Programs Involved:**

Afterburner

The afterburner on a jet dragster is completely customized for racing purposes, but the mechanics are similar to those of any fighter jet afterburner; so aerospace engineering expertise is critical to an effective design. We perform calculations to achieve the most power at different atmospheric conditions. What’s the airflow? Is the fuel mixture right? What’s the fuel-to-air-mass flowrate?

**Programs Involved:**

Engine Cowlings

Cowlings, or body panels, as well as the decorative paint applied to them, affect a jet dragster’s aerodynamics and may actually mean the difference between fast and super-fast. That’s why we engineer our body panels to fit together virtually seamlessly and use high-end automotive racing paint with strong adhesion, durability and polish, which ensures a smooth laminar flow.

**Programs Involved:**

Business Partners

Each of Larsen Motorsports four race teams operates as a separate business entity, requiring sources of revenue to cover expenses. Student interns often assist in initiating and solidifying relationships with corporate partners and sponsors to obtain funding. Each business team develops and executes a business plan encompassing all aspects of accounting, business development, marketing, education and outreach.

**Programs Involved:**

Afterburner

The afterburner on a jet dragster is completely customized for racing purposes, but the mechanics are similar to those of any fighter jet afterburner; so aerospace engineering expertise is critical to an effective design. We perform calculations to achieve the most power at different atmospheric conditions. What’s the airflow? Is the fuel mixture right? What’s the fuel-to-air-mass flowrate?

**Programs Involved:**
Bruce Graham ’83 M.S. has a close encounter with a large dolphin while conducting a survey. Photo credit: CSA
When it comes to the sciences, Florida Tech students don’t just learn from textbooks. They engage in field work with real-world applications. That immersive education has tremendous value to top employers. In fact, one Stuart, Florida-based corporation specializing in marine industries has hired two-dozen Florida Tech grads across four decades, many of whom have advanced to senior positions. We interviewed some of the alumni working at Continental Shelf Associates Inc. (CSA) to find out how their education led to a rewarding career.
Continued from page 27

KIM OLSEN ’83, a senior programs manager, says “The Applied Science program at Jensen Beach was interesting to me, because you’re not just sitting in your basic core classes for two years. You’re applying science from day one. You get on cruises. You get on the boats and take samples. You even get credit for learning how to dive. Florida Tech’s courses gave me a broad background in the sciences, so that when I started out, I could work as a chemist for a while. I could work on terrestrial projects. FIT gives you the broad base of tools to be a problem solver. We might work at a desk for long stretches, but when the Deepwater Horizon spill incident happened, and all hands were on deck to respond, it was the CSA staff from FIT who were often out on site all night fixing the broken equipment or cables in order to resume work.”

MARK SCHROEDER ’79, ’86, a senior operations manager, agrees. “I came to Florida Tech from West Virginia. Before that, my diving was limited to a quarry and the Ohio River. When I heard about FIT—a school for super divers—I knew that was where I was going. At FIT, I was finally around people as serious about diving as I was. While I was going to school, one of my instructors who was friends with a manager at CSA asked if I wanted to work offshore and tells me the school will give me credit for it, so I came to work for CSA. FIT is very good about combining classroom instruction with real-world experience.”

These days, Schroeder is part of a deepwater team that can deploy (and retrieve) equipment, collect sediment and water samples, and bring back accurate geo-referenced video—all from greater than 3,000 meters of water. In the past, such extreme environments were the exclusive domain of universities and the federal government. Now, with the right mix of talent, CSA tackles them.

The practice of recommending top talent continues. KATHLEEN GIFFORD ’09 M.S., a project scientist, says her Florida Tech professors referred her when CSA needed qualified people for their Deepwater Horizon response work. Working out of Texas, Gifford continues to help stakeholders prevent and respond to offshore oil spills.

KEITH SPRING ’81 M.S., a senior scientist in the Ports, Harbors and Beaches group at CSA, said, “My generation of CSA employees from FIT (early 1980s) started out with me being in the right place at the opportune time. I was sitting in my thesis advisor’s office (Dr. Terry Roberts) when he received a call from an associate of his who was working at CSA, asking if he could recommend students to sort through biological trawl samples. I immediately volunteered, thrilled at the chance to get paid for doing something that would be fun, and dragged along my housemate (Florida Tech grad Richard Shaul) to assist. About four months later, I got a call-back offering me a full-time position, with the agreement that I also had to complete my thesis within six months of being hired. Through word-of-mouth, several other FIT grads were also hired. Most of us are still here.”

One of those who joined Spring was MARY JO BARKASZI ’90 M.S., marine mammal programs manager and director of government markets. She says, “To this day many of my professors from FIT are still peers, colleagues and friends. There is a real lasting camaraderie. And it carries over to CSA as well. Everybody works at the same level of commitment. You are surrounded by your true peers.”

BRUCE GRAHAM ’83 M.S., now a senior scientist/marine specialist, joined CSA after being recommended by Florida Tech professor Richard Turner, who was performing brittle starfish IDs for CSA at that time. He says he could never have imagined how far the job would take him, not just in his career, but in working around the globe.

CSA’s energy programs director, CHRISTOPHER KELLY ’01, Ph.D., honed his field skills under Dr. Turner while investigating hermit crab populations in the Indian River Lagoon. He also credits Ralph Tuirgan with stoking an interest in biostatistics. He says, “Florida Tech gave me the foundation to confidently design, conduct and analyze field projects in a scientifically rigorous manner that our clients and their stakeholders can consistently trust.”

PATRICK CONNELLY ’07 M.S., who works for CSA as a project scientist, says that the variety of challenges the company tackles means, “You get to learn about a whole variety of scientific disciplines, and not just scratch the surface. We are afforded enough time to really understand subjects in depth, through literature and
Dedicated to the ocean industry worldwide, CSA services the offshore oil & gas, submarine telecom and scientific markets as well as federal, state and local governments. The following are wholly owned subsidiaries under the CSA Group umbrella.

CSA Ocean Sciences Inc. (CSA)
CSA specializes in multidisciplinary projects concerning potential environmental impacts of activities throughout the world and offers a wide variety of desktop and field survey services. CSA is headquartered in Stuart, Florida, with regional offices in Florida, Louisiana, California, Texas, Trinidad, Qatar, Brazil and Australia.

Ocean Specialists Inc. (OSI)
OSI is a leading subsea cable consulting and advisory firm for the development of undersea cable systems and networks. With offices and people strategically placed around the world, OSI has delivered more than 200 subsea cable projects to its global client base.

Learn more about both companies at: www.conshelf.com

There’s always some interesting project going on, whether it’s in Russia, the Falklands, the Mediterranean, Guam, or right here in Florida. We maintain a scientific dive team that works all over the world.”

—Mark Schroeder

JIM BYOUS ‘85, president of OSI, says, “My four years at the Melbourne campus played a foundational role in shaping my life and career. The ocean engineering program was close-knit and many of us remain close over 30 years later. When I learned about FIT’s OE program, I was already working in the offshore diving industry, but the degree I obtained allowed me to combine engineering, project management and subsea construction. Florida Tech was a great launching pad for that.”

Byous has turned that education into a career in the subsea cable industry, one that gave him the opportunity to participate in a wide range of offshore construction operations and advance to executive roles. He joined OSI in 2003 before they merged with Continental Shelf Associates. Looking back at the success of these alumni, and the companies they work for, he says, “Along the way I’ve enjoyed every bit of my career, but working alongside such an incredible group of people has been the highlight.”

—Greg Leatherman

Keith Spring ’81 M.S. documenting green turtle abundance off Tinian, one of the three principal islands of the Commonwealth of the Northern Mariana Islands, in 2017. Photo credit: CSA.
DEAR ALUMNI, STUDENTS, PARENTS AND FRIENDS,

First of all, Congratulations to the Class of 2018! You are our newest members — Welcome to the Alumni Association! Join the other 60,000-plus proud Panthers!

Thank you to Bino Campanini, Stephanie Bacon, Jillian Leclerc and Cindy Berger for hosting Grad Bash with the largest unprecedented numbers of graduates/new alumni, family and friends, out on the Crawford Green with live music, food/drinks and perfect Florida spring weather! Witnessing the enthusiasm and momentum of this class at Grad Bash, I am humbled by the growth/innovation of our new graduates as well as the accomplishments of our outstanding alumni.

We are proud to say that the Alumni Association along with our partners are working on a bold new Alumni House Renovation project. This project will create a campus meeting place for our alumni. It will also become a showcase prototype in Central Florida to demonstrate cost-effective, scalable, zero-energy commercial building design for Florida climates. With immense gratitude, we need to recognize and thank professors Troy Nguyen, Ph.D., PE, principal investigator; Aldo Fabregas, Ph.D., co-PI; and Hamid Najafi, Ph.D., co-PI for their efforts through the Florida Renewable Energy & Energy Efficiency Technologies (REET) Program, and our corporate alumni partners, MHWilliams Construction Group, National Solar, Orlando Melbourne International Airport, Morgan & Associates, MK Structural and BRPH, that have spent countless hours on this project.

I would like to personally invite you back to campus during Homecoming 2018! Homecoming weekend (Oct. 11–13, 2018) kicks off on Thursday, Oct. 11, for the Downtown Melbourne Homecoming 5K, followed by the Homecoming Fest, a free concert in Downtown Melbourne and it all culminates with the Homecoming Gala, honoring our outstanding alumni in their relative fields for each college and the overall honor of the Jerome P. Keuper Award. If you are planning a visit to Central Florida, please consider attending this premier event.

Have a prosperous, successful and fun summer!

We are committed to increasing the value of our degrees! #PantherPride

Go Panthers!

Andy Kirbach ’90

YOUR ALUMNI ASSOCIATION OFFICERS

Andy Kirbach ’90 | President | Melbourne, FL | akirbach@gmail.com
Kim Bozik ’87 | Vice President | Chandler, AZ | kim.b.bozik@intel.com
Rhodie Humbert ’82 MBA | Secretary | Melbourne FL | rhodiehumbert@aol.com
Brian Stahl ’86, ’88 M.S. | Treasurer | Satellite Beach, FL | brainnstahl5@gmail.com
David Murphy ’91, ’01 M.S. | Member-at-Large | Winter Garden, FL | davidmurphyvr9@hotmail.com
Al Hagopian ’89, ’94 MBA | Member-at-Large | Indialantic, FL | AlHagopian6@nids.com

ALUMNI NEWS

News from the desk of

Andy Kirbach ’90
Florida Tech Alumni Association President

Who says you can never go back?

By Bill Welychko

It had been many years since our time at Florida Tech. The mid- to late-70s to be exact. We graduated, we got married, we got jobs, we changed jobs, we moved on with our lives and now, many of us, if not retired, are contemplating retirement. On the weekend of April 13 Lambda Chi Alpha–Beta Nu Zeta celebrated our Founders Day. For many of us coming, we carried the distinction of being part of the first hundred Brothers initiated into LXA. Brothers rolled in from California to Maine. For many of us, this was the first time we had seen each other in over 40 years.

During the weekend we were able to catch up on where our lives have taken us. We laughed at each other, we reminisced, we told tall tales about ‘alleged’ pranks we may (or may not) had been a part of and thanked God that cell phone technology had not yet been developed yet. In true Space Coast tradition, we were treated to an Atlas V launch followed by a flyby of the International Space Station on a crystal-clear Chamber of Commerce night.

We had opportunity to sit down and discuss with current students and Active Brothers what life is like at Florida Tech and what issues face students today. It was an interesting, honest, discussion in that many of us are as old, if not older, than the current students’ parents. After spending the weekend together, the line from Paul Simon’s song, “The Boxer,” comes to mind, “After changes upon changes, we are more or less the same.”

What has changed, and all for the better, is the Florida Tech campus. We were treated to a trolley ride through campus which highlighted all of the tens of millions of dollars of donations which has funded new development, technology and upgrades that have gone into making Florida Tech a preeminent institution of higher learning.

The experience of being part of a brotherhood is a powerful one. Fraternity allowed us to develop organizational skills, to learn to communicate effectively and to grow relationships before we ever started our first jobs. We are blessed to be able to enjoy the friendships of our brothers and sisters today and remember it forever in a lifetime of true brotherhood.

ON THE ROAD: D.C.

Alumni, parents and guests gather at JW Marriott

1970s

Pi Kappa Alpha brothers ROBERT MILLEN ’75, MURRAY PORTNOFF ’71, CHARLES CHIODO ’73, VITO KAMINSKAS ’73 and JOHN BROWN ’71 reunited at the Pike House for the Alumni Grill ’N’ Chill.

CORRECTION
The winter 2018 issue of Florida Tech Today incorrectly published that Steven Conn ’75 had returned to Florida Tech to pursue an MBA. The editorial staff apologizes for the confusion. Steve Conner is a current graduate student in the MBA program.

1980s

A Bahamian Reunion: Jensen Beach graduates GREG KERLEY ’80, NOEL RODMAN ’80 and JON BUCK ’80 caught up during a trip to the Bahamas.

After spending 33 years with American Airlines, SCOTT WALLER ’80 takes his last flight as a Boeing 787 Check Airman. He writes, “...And to think it all started at FIT so many years ago.”

Structural Composites, a company founded and led by SCOTT LEWIT ’82, ’85 M.S., received the 2018 Innovation Company of the Year award from the Economic Development Commission of Florida’s Space Coast. The company was recognized for its CoCure hybrid metal/composite technology.

Matrix Service, a top-tier industrial contractor with international offices, has named JOHN HEWITT ’83 as president/CEO. Hewitt brings management and leadership experience, extensive knowledge of the energy industry and significant experience with acquisitions to the position.

Hugh Turner ’84 Psy.D. in the Mekong Delta, taking time out from honoring the lives of our Vietnam vets to make the acquaintance of a local “resident.”

NEIL RABINOVITCH ’86 was recently named as senior controls engineer for O’Neal Inc., a Greenville-based integrated design and construction firm. A successful engineer, Rabinovitch has over a quarter-century of experience with companies such as Michelin and Rockwell Automation.

MATRIX COMPOSITES, a company founded and led by DAVID NESBITT ’87, received the 2018 Small Manufacturer of the Year award from the Economic Development Commission of Florida’s Space Coast.

1990s

RON PORT ’90 M.S. has been named Kennametal vice president and president of the infrastructure business segment. Port will have global responsibility for the company’s advanced materials, earth cutting tools, engineering components and ceramics business.

Former CEO of Capstone Corporation, RICHARD WHITE ’90 MBA, continues to innovate as president of SSL Government Systems, a leading provider of satellites and spacecraft systems. White has skillfully dealt with U.S. DoD, intelligence and civilian agencies for over 30 years and is responsible for bringing SSL and MDA capabilities to the U.S. government.

ALUMNOTES

SUBMIT YOUR NEWS TO alumni@fit.edu

A Melbourne native, BRUCE MOIA ’89 is a civil engineer who specializes in roads, drainage and master planned communities. Moia, along with two partners, leads the engineering firm MBV Engineering Inc., which was founded in 2002 and has executed hundreds of projects in the Melbourne and Vero Beach regions.

Welcome Panther Cubs!
Congratulations! If you’ve recently welcomed a Panther Cub to your family, contact us for a free apparel item. Choose from a T-shirt, bib or onesie. Then send us a photo of your child in their Panther swag, and an AlumNote about yourself, to share in Florida Tech Today.
For details, email alumnotes@fit.edu

2018 DC Alumni Reception

Alumni, parents and guests gather at JW Marriott
ON THE ROAD: CONCERT SERIES

The 2018 Concert Series at King Center featured Howie Mandell, Jackson Browne and Joe Bonamassa shows.

2000s

Florida Tech Today | 33
Continued from page 33

director of coastal engineering services with KS Associates, a civil engineering and land surveying firm in Elyria, Ohio. In this role, Cencer leads the company’s planning, design and construction engineering services for all types of waterfront infrastructure, with a focus on projects along the Great Lakes and inland bodies of water throughout Ohio.

SUNGJIN PARK ’03 Ph.D. and his daughter volunteered at the 2018 PyeongChang Winter Olympic Games. They are members of BBB Korea, a language and culture organization that was called on to volunteer in assisting U.S. athletes and staff in language services during the Olympics.

Maj. ASHLEY LUNDRY ’06 (right), an aerial reconnaissance weather officer, has flown through more than 10 storms as a member of the Hurricane Hunters, a unit in the 403rd Wing at Keesler Air Force Base in Mississippi. Lundry is one of four female ARWOs in the squadron, Air Force, and Air Force Reserve.

ANDREA GIBSON ’06 Ph.D. has been named executive director of Institutional Research at Daytona State College. Gibson has worked with Daytona State for over a decade and has served as chair of the Honors College and chair of Online Studies.

DANIELLA IACOBELLI ’09 was inducted in the 2018 Sunshine State Conference (SSC) Hall of Fame in March. The SSC Hall of Fame, founded in 1991, honors individuals who have made outstanding contributions to the league.

JEAN MASCIO ’11 successfully defended her Ph.D. in Atmospheric Sciences from the University of Utah on March 13, 2018. In April, she joined Atmospheric and Environmental Research Inc. in Boston as a senior research associate.

ERINN MULLER ’11 Ph.D. is presenting two programs at the 2018 Darling Lecture Series, hosted at Darling National Wildlife Refuge on Sanibel Island, Florida. Presently serving as staff scientist and program manager at Mote Marine Labs in Sarasota, Muller has published numerous papers about coral bleaching and is on the forefront of coral preservation and restoration.

MICHAEL ROBINSON ’15 and KINEO WALLACE ’17 are a part of a new evolution in rocket technology. Working with Rocket Crafters Inc., the two former Panthers are developing breakthrough hybrid rocket engine technology with a patented 3-D additive manufacturing technology.

CARLY RANDALL ’16 Ph.D. recently published in *Scientific Reports* demonstrating that coral disease cycles correspond with El Niño weather patterns. While conducting her postdoctoral research with the prestigious Australian Institute of Marine Science, Randall has investigated firsthand the causes and effects of the 2016 and 2017 bleaching events of the Great Barrier Reef.

Logan Charles Allabaugh is one happy Panther cub in his FIT onesie! Born to JESSICA ALLABAUGH ’10 and RICHARD ALLABAUGH ’12, he hopes to one day attend Florida Tech like his parents!

ON THE ROAD: KOREA

President Dwayne McCay and Bino Campanini greet our Korean alumni in Seoul
HARRY HOBB’S ’17 DBA granddaughter Layla Matthews (11 ½ months) is excited about one day growing into a full-fledged FIT Panther.

FIT Huntsville Site Director

AWARD-WINNING RESEARCHER

This spring, PATRICK DURAN ’12 received the Max Eaton Student Prize, which recognizes an outstanding student paper, at the 33rd Conference on Hurricanes and Tropical Meteorology in Ponte Vedra, Florida.

Duran, who earned his Ph.D. in atmospheric science from the University at Albany, State University of New York, in May, studies the upper levels of hurricanes and how that part of the storm evolves as a hurricane intensifies.

“I study how turbulence and radiation can modify the resistance of the atmosphere to vertical motion near the tropopause (the dividing line between the troposphere, or lowermost layer of the atmosphere, and the stratosphere, which is the layer above it),” said Duran.

He will continue his research as a research associate at the University of Alabama in Huntsville and acknowledges the solid research foundation he received as an undergraduate at Florida Tech.

THE METEOROLOGY faculty [at Florida Tech] got me involved in research projects during my freshman year, and I remained involved throughout my undergraduate career. This research experience was a very important factor in my acceptance into graduate school and set the stage for my success as an early-career scientist.

Thank you to all our UAE alumni for joining us in Abu Dhabi
In Memoriam

GEORGE O. PETERS, one of the university’s founding members, passed away Jan. 29 at the age of 96 in Israel. He played an integral role in the university's development, serving as treasurer, department head of mathematics for Brevard Engineering College and acting chairperson for the electrical engineering department. He was also actively engaged in finding the college a permanent campus in those early days. After leaving Florida Tech, he went on to teach at the University of Papua in New Guinea. He is survived by three children, eight grandchildren and 10 great-grandchildren.

PETER J. SUTCH JR. ’70 M.S. passed away Jan. 24. He earned his master’s degree in systems management at Florida Tech while working in base communications and logistics for NASA.

Col. ROBERT KRONEBUSCH (USAF Ret.) ’84 MBA passed away April 15. After retiring from the U.S. Air Force, he worked as a program manager for Harris Corp. for 13 years.

TERESITA (TESS) BYERS, production chef at the SUB Café since 1991, passed away Jan. 13. Known for her leadership in the kitchen and kindness to fellow employees, her outstanding cooking was widely admired and appreciated by faculty, staff and students.

GERALD GOODCHILD, former department head for ROTC at Florida Tech, passed away Jan. 17.

GREG MOHR, adjunct instructor for Florida Tech University Online, passed away March 7 in his home state of Arizona.

EVELYN PASONSKI, a supporter of the Florida Tech campus ministry, passed away April 9.

Tom Utley ’96 Ph.D., associate professor in the College of Aeronautics and chair of the aviation meteorology program, passed away Jan. 24. He served at Florida Tech from 1994 to 2015. His colleagues will long remember his kind heart and total dedication to his students.

In Memoriam

Marilyn C. Link

MARILYN LINK, a passionate advocate for the power of education and the sanctity of the natural world who served for more than three decades on the Florida Institute of Technology board of trustees, passed away March 19. She was 94.

An educator and pilot, Link served in the education division of her family’s Link Aviation Inc. She served as a member of the Women’s Advisory Committee for the Federal Aviation Administration and also worked for the National Air and Space Museum at the Smithsonian Institution. In the early 1970s, she came to Florida at the request of her brother, Edwin Link, to serve as the first manager of the Harbor Branch Oceanographic Institute.

In 1984, Marilyn Link joined Florida Tech’s board of trustees, where she offered her steady guidance and powerful perspective for nearly 35 years. She was trustee emerita at the time of her passing.

The Link Foundation, for which Marilyn Link serves as a special advisor, has awarded nearly $15 million in grants to Florida Tech and many other nonprofit organizations interested in the mastery of the air and sea, and the development of energy resources and their conservation, and in simulation and training.

Ms. Link’s generosity has also helped make possible the digitization of the Edwin A. Link Special Collection at the university library, and she established a charitable gift annuity at Florida Tech.

For these contributions and many others, the university awarded her an honorary doctorate at Fall Commencement on Dec. 16, 2017.
Randall Thompson: Dugout Mugs

Randall Thompson’s brainstorm in a Florida Tech dugout has transformed into a million-dollar idea delighting baseball fans from the little league to the majors.

“The idea for the Dugout Mug came from a dugout, Florida Tech’s dugout, to be exact. When I was coaching at Florida Tech in 2014, Matt Mercurio (the assistant baseball coach/recruiting coordinator), wanted his hitters to really focus on their hands, so he began cutting the barrels off of baseball bats. Sometime in the spring of 2014, I looked at one of the barrels in the dugout and had a light-bulb moment … I asked myself, ‘Can I turn that into a drinking mug?’

After I graduated from Florida Tech, I earned an opportunity to play professional baseball in the Toronto Blue Jays organization. I spent a season and a half with the Blue Jays before I got released. After being released, I joined the coaching staff at Florida Tech as their pitching coach, and that same year, I came up with the idea for the Dugout Mug. I later moved across the state to St. Petersburg to work for an ad agency, and when that failed miserably, I fell into a job driving a delivery van for Sherwin-Williams Paint Company. I would drive the van from 6:30 a.m. to 2:30 p.m., and from about 3 p.m. to 10 p.m. I was learning, researching, testing, calling people, asking questions; overall, I was planting a lot of metaphorical seeds that I was hopeful would eventually grow.

The transition to entrepreneur has not been seamless. It has come from a lot of hard work, sacrifice, stress, patience and persistence. The hard work came from working two and (sometimes) three jobs (on top of the work going into starting the business). I tried to find every possible way to make money to funnel back into the business. Everything was bootstrapped. The sacrifice came from only eating rice cakes with peanut butter, and $1.37 Tostinos pizzas for a year as I saved up cash.

When a person is looking to do something that hasn’t been done before or they haven’t done before, they have to turn their default answer from ‘I don’t know’ into ‘I gotta know.’ Finding these answers can be extremely stressful because you don’t know what questions to ask. If you’re doing something that hasn’t been done before, sometimes you have to create your answers (rather than find them), and that becomes very time consuming, as you have to accumulate enough information to create an answer with confidence. However, none of this exists without persistence. A person has to be relentless in their daily pursuits. Without persistence, nothing gets accomplished.

Randall Thompson, far right, at the Pro Baseball Scouts Foundation Award Show in Los Angeles with, from left, Matt Vasgersian, of MLB Network; Kris Dehnert, business partner; and Joe Magrane, of MLB Network.

Randall Thompson with Rob Manfred, Major League Baseball commissioner.

DEGREES: ’11 B.S. business management, focus in marketing
CURRENT CITY: St. Petersburg, FL
HOBBIES: Getting outside, playing tennis and basketball, brewery hopping, reading about other companies, and purchasing/trading stocks.
LITTLE KNOWN FACT: Named after my dad’s favorite hunting knife company
NOTABLE ACHIEVEMENT: First full year in business generated 7-figures in revenue with the Thompson Mug Company
FAVORITE FLORIDA TECH MEMORY: Too many to narrow down to one. Tons of great times with a lot of great people.
BEST PART ABOUT BEING AN FIT ALUMNUS: After graduation, I have received guidance/mentoring from the professors I had as a student. Dr. Sam Doss has been gracious in sharing his wealth of knowledge and allowing himself to be a resource. The relationships don’t stop upon graduation—that is the best part about being a Panther.
ONLINE: dugoutmugs.com
AND NOW IT’S TIME TO SAY GOODBYE ... AFTER 17 YEARS AS DEAN AND PROFESSOR OF FLORIDA TECH’S COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS (COPLA), I WILL BE RETIRING AT THE END OF JUNE 2018. It has been a good ride—I think we have accomplished a good deal within the college and in the university and I feel confident that CoPLA’s administrators and faculty will excellently carry on and advance our academic programs, research and service initiatives.

Being dean has been an enriching, professionally challenging and satisfying job and has afforded me the opportunity to do what I am most passionate about—enhancing individual lives and the broader community through educational programs, research and services. I have always considered myself a “builder” and I am happiest when creating something new that will make the world a better place. I was fortunate to have many like-minded faculty and administrators to work with to build new academic and service programs, to expand our research and scholarly contributions, to better engage our local community and to more directly address issues confronting our society. We also committed ourselves to showing others in this technological institution how our disciplines in psychology, behavior analysis, humanities and communication enrich the education of students in all fields and better prepare them for success in their careers and lives.

As a result of new initiatives, student enrollment in our college grew from approximately 200 to 1,100 students, and we now provide academic programs that address the interests and needs of a greater array of students, including international students, veterans, traditional on-campus students, home-bound students and working professionals. We have a full “portfolio” of programs within CoPLA, extending from associate degrees to doctoral degrees, and in a variety of delivery formats, including full time on campus, weekend, hybrid and fully online.

We also have increased and expanded our research programs. Faculty with great passion for research have engaged and mentored students in applied research, yielding results that can be used to improve the functioning of individuals, organizations or society and engendering a lifelong appreciation and enthusiasm for research. And through their publications and presentations, faculty bring attention to Florida Tech and the impressive body of research being done by CoPLA faculty.

Occasionally, I have a person ask me (or at least, wonder) “what does a dean do?” My response is that a dean paints an inspiring vision for the college, formulates paths to get there, helps others see their potential roles in accomplishing that vision and their professional goals incorporated within that vision, and then encourages and assists all to strive toward that vision. So a dean is dreamer, promoter, puzzle maker, road paver, enforcer, cheerleader, mentor, protector of nascent ideas, problem-solver, consultant, supporter. I have enjoyed all of these roles, and I am certain the next dean will continue and expand upon them.

So what now? Why leave when I am having such a good time? You can partially blame Florida Tech for that. While here, I have been surrounded by students and faculty who come from all over the world and embody many different and interesting cultures. Being in this mix has made me realize how much more I want to learn about the history, culture and peoples of the world. And the events of today both here and abroad show how much more needs to be done to make the world a better, inclusive and more peaceful place. While my husband and I started to do more international travel several years ago, it seems on those trips, we just about get our bearings when it is time to leave. So we are looking forward to more extended stays in places around the globe so we can more fully engage in discovery and learning. Then we hope to find new ways to use that knowledge and our skills to “do good in the world.” Looking forward to this next life phase! Thanks for the opportunity to serve as dean.
Florida Tech extends its *High Tech with a Human Touch* approach with convenient, 100% online graduate and undergraduate programs with the same high-quality, real-world education you’d receive on campus, paired with regular peer collaboration and faculty interaction.

Choose from a variety of programs in these in-demand graduate disciplines:

- Accounting & Finance
- Business Administration
- Cybersecurity
- Database Administration
- Enterprise Resource Planning
- Healthcare Management
- Information Technology
- International Business
- Management
- Marketing
- Organizational Leadership
- Project Management
- Supply Chain Management

Call **855-300-1469** today to speak with an enrollment services representative or visit [FloridaTechOnline.com/Alumni](http://FloridaTechOnline.com/Alumni) to learn more.
Epic Evolution

Since its founding in 1958, Florida Institute of Technology has transformed from a night school for space program workers to a national research university preparing students from all around the world for exciting careers of the future. This fall, we celebrate 60 years of reaching for the stars.