



PRESIDENT'S REPORT

2020-2021



TABLE OF CONTENTS

Securing Success in Challenging Times.....	4
Focus on the Future	6
Community Connections.....	10
Philanthropy in Action	14
Research Highlights.....	16
Campus on the Move	18

A LETTER FROM THE PRESIDENT

To survive in challenging times is an accomplishment, and to thrive during those times is truly special. But then Florida Tech is a special place with many hard working and talented faculty, staff and students.

We continue to successfully navigate a global pandemic and offer a high-quality STEM education that students and their parents know has the value to create brighter futures. Enrollment is strong, our reputation is growing, and our campus facilities are evolving to meet the requirements of tomorrow's high-tech skill sets.

None of this is easy, but it should—no, must—be done. It's why this university was founded and still exists today. It's why so many of us have devoted years of our lives and invested our careers in nurturing that mission.

I've always believed that you should judge a university by its product, and our alumni remain our biggest success. Coupled with the amazing research of our faculty, you have a dynamic university community that is poised for whatever the future brings.

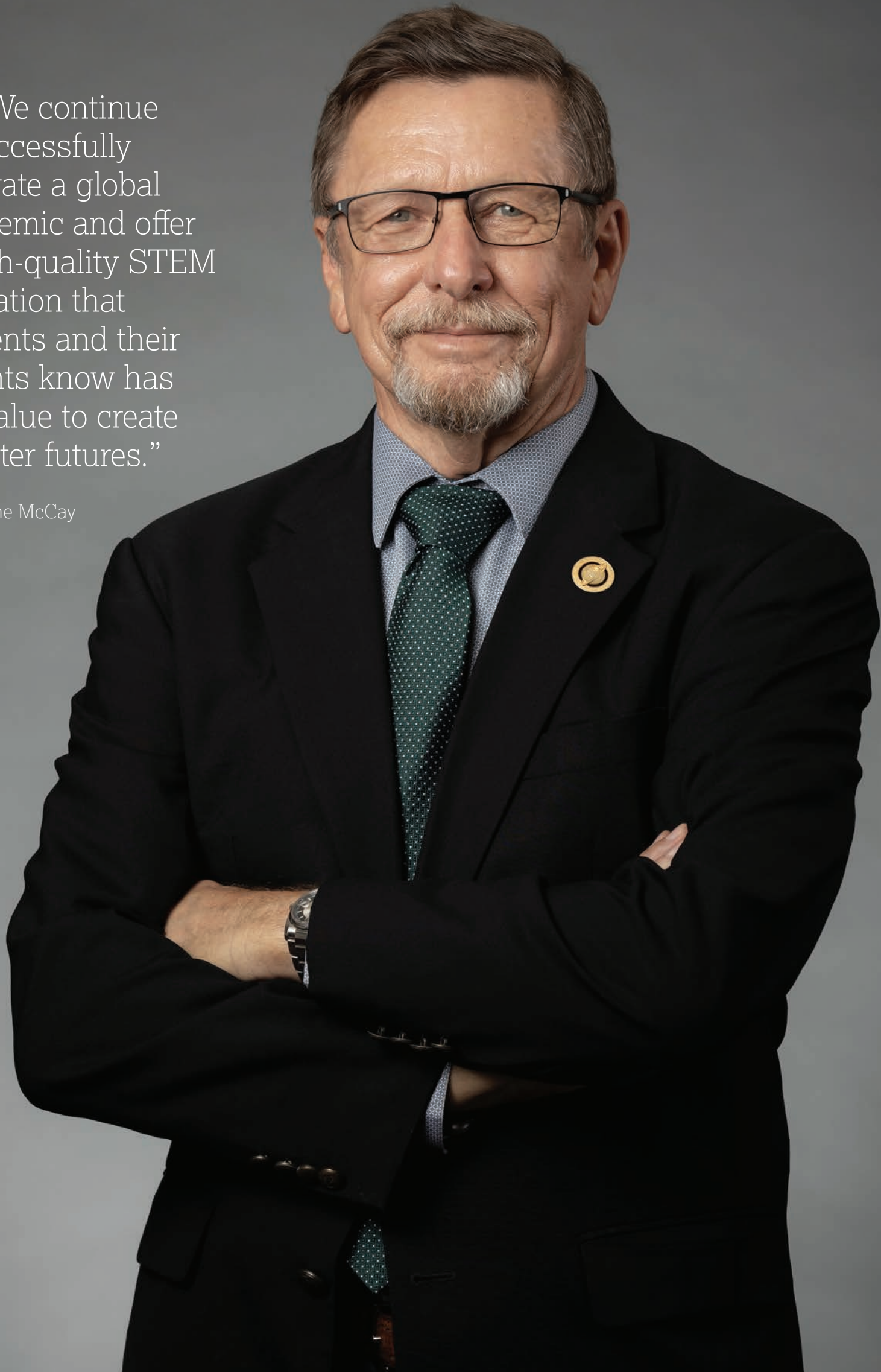
I hope this annual report gives you a snapshot of where Florida Tech is headed, thanks to the efforts and energies of many for the benefit of all. Thank you for your continued support.



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

“ We continue to successfully navigate a global pandemic and offer a high-quality STEM education that students and their parents know has the value to create brighter futures.”

—Dwayne McCay



SECURING SUCCESS IN CHALLENGING TIMES

To address the array of difficulties posed by COVID-19 for the 2020–21 academic year, a whole-campus effort has been required to ensure health and safety. Flexibility has remained a key component.





ASSESSING THE SITUATION

University leadership and the Pandemic Response Team, working collaboratively across campus units, developed Return-to-Learn recommendations to facilitate the university's safe and efficient return to campus-based living and learning in the fall and spring of 2020–2021. Operations across campus—from the student experience to the work environment for faculty and staff—were evaluated for risk, assessed for opportunities and challenges and modified to ensure the health and safety of all Panthers.

Central to this work was the development of the Florida Tech Safe initiative, an evaluation of the university's safety culture, establishment of a safety pledge and implementation of policies and procedures to mitigate the risk posed by COVID-19. Due to the dedication and policy adherence from our students, faculty and staff, we were able to successfully complete a hybrid 2020–2021 academic year and return to in-person learning for fall 2021.



Our pledge for safe students, safe campus and safe community remains. We will continue to carefully monitor public health conditions and maintain regular communication with health officials. Although we hope it won't be necessary, we have the experience and capacity to rapidly pivot to remote or hybrid instruction if necessary. Florida Tech's plan aligns with local orders and ordinances of the city of Melbourne and Brevard County, as well as the state of Florida. It also follows recommendations from the federal government, Centers for Disease Control and Prevention (CDC) and Florida Tech's Holzer Health Center.

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Florida Tech Safe Return to Learn Plan

Keys to Success

Safe Spaces

To maintain the safety and effectiveness of in-person classes during the pandemic, it is critically important to ensure both the physical layout of the classroom and the access to the classroom are carefully considered. We have secured and repurposed larger spaces on our campus to allow adequate social distancing between students and faculty. Spaces must also support technology for remote access, which often requires the deployment of temporary audio, video and communication infrastructure.

Multiple Modes

It is important to recognize that individual students and faculty may be experiencing different personal challenges requiring special accommodations. These personal situations are likely to change through the course of the term. We have ensured that our face-to-face classrooms provide simultaneous modes for delivery, including both synchronous and asynchronous remote access to the same classroom material. This flexibility allows students to remain engaged with the class even in situations that may require a temporary change in their preferred delivery mode.

Frequent and Open Communications

The fear, stress and uncertainty that accompany these kinds of situations are possibly the biggest impediments to success. We know we can resolve virtually any situation when we come together as a team. Maintaining frequent, open and honest communication with everyone enables all to understand the challenges and their implications so they may contribute to the solution. Our Florida Tech family has once again shown we can unite as Panthers to take on any challenge.

Source: *The Relentless, Florida Tech Magazine*, Winter 2021, Marco Carvalho

FOCUS ON THE FUTURE

Investing today ensures that we are ready for the challenges of tomorrow. The brick-and-mortar facilities required to remain competitive in the future are important pieces of our plans.





HEALTH SCIENCES RESEARCH CENTER NEARS COMPLETION

It won't be long before the university—and the larger community—have a much-needed facility for advancing education and research.

The Health Sciences Research Center, an \$18 million structure to be filled with cutting-edge equipment, labs and learning spaces centered on biomedical engineering and sciences will supercharge the university's efforts to meet the expected surge in those fields in the coming years.

“Florida Tech has long been home to those who not only ‘dream,’ but those who ‘do,’” President Dwayne McCay said. “Our world needs both. We honor our commitment to the future with the addition of this important facility.”

The three-story, brick-clad building on the university's south campus in the Olin Quad will offer more than 61,000 square feet of space, with more than a third of that—22,300 square feet—dedicated to labs, classrooms and training space.

The building will feature stunning architectural and design elements, including an open, three-story atrium; glass walls throughout to enhance the open feel and engagement of users; an open courtyard; and a café study lounge.

Key features within the center are expected to include state-of-the-art teaching laboratories in human anatomy, augmented and virtual reality teaching tools, and facilities for orthopedics, tissue studies and advanced computational simulations. Specialty equipment scheduled for use includes an array of cutting-edge devices, such as Raman microscope/spectrometer, virtual dissection tables, tissue fatigue testing machine, and high-performance modeling and simulation software.

The center will allow Florida Tech to double the size of the undergraduate biomedical engineering program to 300 full-time, on-campus students and increase the size of the undergraduate premedical program from 150 to 250 full-time, on-campus students.



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President Dwayne McCay





HEALTH AND WELLNESS CENTER FILLS CRITICAL NEED

The proposed new Health and Wellness Center will unite three critical service areas in one convenient and expanded location for students. Mental health services, medical health services and mind and body wellness can be comprehensively addressed in a two-floor, 22,000-square-foot center.

STUDENT COUNSELING CENTER SERVICES

- » Continue to offer a variety of mental health resources to students to help address a wide-range of mental health issues that may interfere with academic progress and holistic wellness, including counseling, crisis intervention and management, outreach and consultation.

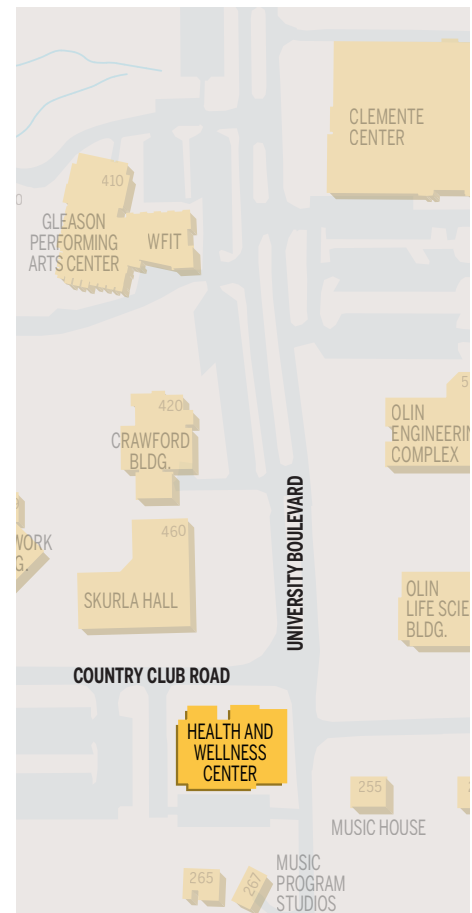
HOLZER HEALTH CENTER SERVICES

- » Preventive and episodic health care to all currently enrolled students.

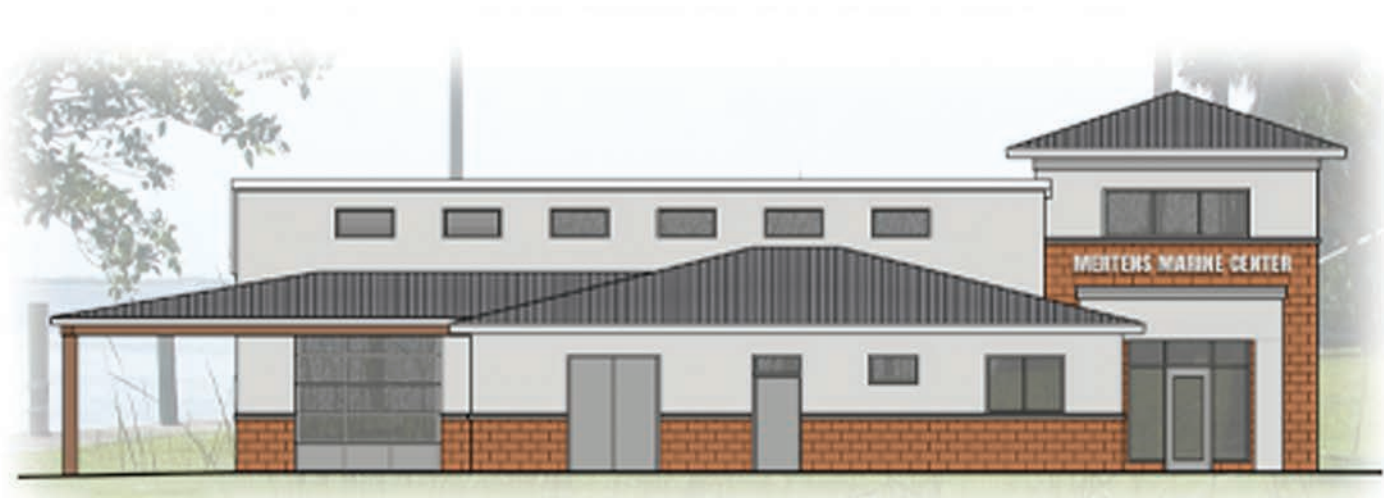
WELLNESS CENTER

- » Offer programs promoting health awareness and active lifestyles. The goal would be to assist students in making choices that facilitate a better quality of life through healthy decision-making. The wellness center would relieve both the Student Counseling Center and the Holzer Health Center as well as enhancing and expanding programs.

Plans call for the facility to be located at the corner of Country Club Road and University Boulevard. Cost is estimated at \$8 million.



Project site



MERTENS MARINE SCIENCE CENTER: FROM VISION TO REALITY

Lawrence “Larry” Mertens had a passion for underwater scientific research and marine life. He and his wife, Margarete, were avid scuba divers. Larry also enjoyed underwater photography, capturing beautiful color photographs of fish and corals both at night and during the day.

Mertens became Florida Tech’s first marine biology instructor through the request of his friend Jerome Keuper, Florida Tech’s founding president, who was starting up the program. Mertens designed and ran the first summer field course in the Bahamas for underwater photography and was later an instructor for the university’s first course in optical oceanography. He was also the first Florida Tech faculty member to author a college-level textbook, on in-water photography.

As Mertens grew to become a major benefactor for the university, he used his passion for the water as a guide for some of his largess. In 2014, the Lawrence and Margarete Mertens Endowed Fellowship Fund was established, which supports graduate students enrolled in the College of Engineering and Science through a \$1 million gift. In 2017, they established the Lawrence and Margarete Mertens Building Fund, another \$1 million gift to support the development, design and construction of a state-of-the-art facility at the Ralph S. Evinrude Marine Operations Center at the mouth of Crane Creek on Melbourne Harbor.

The building will assist researchers in their Indian River Lagoon (IRL) improvement efforts and provide a premier educational experience for students as they get hands-on experience with the lagoon. While Lawrence Mertens passed away in December of that year and Margarete Mertens passed away in May 2018, their endowment for the building was a final way of giving to their passion.



The building will assist researchers in their Indian River Lagoon improvement efforts and provide a premier educational experience for students as they get hands-on experience.

COMMUNITY

CONNECTIONS

In challenging times, connection is all the more important. The people of Florida Tech reach beyond the campus to help improve the world in ways both large and small.





Florida Tech research examines oysters' ability to filter water.

LIVING DOCKS BRING NEW LIFE TO INDIAN RIVER LAGOON

Oceanography assistant professor Kelli Hunsucker's work with organism growth is two-fold. Her biofouling research analyzes new ways to keep organisms from accumulating on ship hulls and corroding them. However, it's the other side of her work with these same organisms that may have some positive impacts on the water quality of the Indian River Lagoon.

Since 2016, Hunsucker, alongside ocean engineering associate professor Robert Weaver and Florida Tech's Indian River Lagoon research team, has partnered with the local community through the Living Docks program. The program involves wrapping dock pilings with oyster mats. The idea is that the mats facilitate the growth of oysters, barnacles and sponges, all of which are filter feeders that help remove excess nitrogen from waters by incorporating it into their shells and tissue as they grow.

"Someone once told me, it's only a weed if you don't want it," Hunsucker said. "That's kind of the approach I use for my yard and that's the approach we use for the Living Docks. Most people think of barnacles, tubeworms and sea squirts as biofouling, things that we typically don't want, but when you think about their ecosystem benefits, they provide a good service such as water filtration, habitat structure and a food source."

From Cape Canaveral to Melbourne, the team has worked with Brevard residents to turn docks into habitats for beneficial organisms along the shores of the lagoon. The process is a team effort: in addition to helping with mat



Assistant professor Kelli Hunsucker conducts oyster mat workshop.

installation, volunteers come together to create the mats themselves. For example, in 2019, the Beach Woods community in Melbourne Beach had a gathering of approximately 80 residents participate in the mat creation event. While the pandemic has limited the number of installations over the past year, the effort will continue.

"Everyone is so excited about the whole process, from start to finish," Hunsucker said. "People really appreciate the hands-on nature of the project and the fact that they're contributing to helping improve the lagoon."



FLORIDA TECH, JACKSONVILLE JAGUARS PARTNER FOR HIGH SCHOOL STEM LAB

Florida Tech has partnered with the NFL's Jacksonville Jaguars to open a STEM Lab at Andrew Jackson High School of Advanced Technology in Jacksonville.

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

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

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

In addition to providing an outlet for science, technology, engineering and math, the new lab will supercharge student efforts to apply to college.



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



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—President Dwayne McCay

GENEROSITY ON AND OFF CAMPUS FUELS EMERGENCY RELIEF FUND

Aided by voluntary salary reductions from senior university leadership initiated by President Dwayne McCay and generous donations from members of the board of trustees, the Florida Tech Emergency Relief Fund established in the midst of the coronavirus crisis provided financial assistance to individuals and families affected by the challenging business climate created by the pandemic.

For those former Florida Tech employees with documentable needs, the fund assisted with a variety of support, including medical bills, mortgage or rent payments, childcare and food, electricity, gas or other necessities.

The fund began when McCay asked senior faculty and staff leaders at Florida Tech to consider taking salary reductions of at least 10%. Many did so, with several making larger contributions.

“We must help one another where and when we can,” McCay told the campus community in a May 29, 2020, note detailing the plan.



Inspired by that action, nine members of the university's board of trustees joined in pledging additional support.

An earlier effort, the Special Day of Giving in May 2020, drew pledges from more than 400 alumni, parents and friends to assist students in need because of the pandemic.

“We are all in this together, and the bonds that unite our Panther family remain as strong as ever,” McCay said. “I applaud and appreciate our leadership and our trustees for their generosity and compassion.”



MCCAY ON NPR: UNIVERSITY MUST PIVOT IN FACE OF VISA RULES FOR FOREIGN STUDENTS

In July 2020, President Dwayne McCay described the potential impact of federal regulations affecting international student visas during a nearly eight-minute interview on National Public Radio's “All Things Considered.”

Speaking from the university's NPR affiliate WFIT 89.5 FM, McCay told host Michel Martin that regulations from the Trump Administration announced July 6, 2020, that would revoke U.S. visas from international college students whose classes are all online impacts a cohort that is key to the success of Florida Tech and other smaller, private institutions.

“We will suffer significantly (under these regulations),” he said. “We are a small school, and we are tuition driven

as many small, private schools are, and the international students pay a significant level of tuition to attend here. So being tuition driven, if you lose all those students, you would lose close to half your tuition,” he said. “But in addition to that, we get some of the best international students from all over the world, and so our international students raise the level of ability for each and every class and project to accomplish more than they could have.”

As the interview concluded, Martin asked McCay what advice he would offer to other educational leaders.

“The only advice I can give is flexibility. If you are not flexible, you are not going to survive,” he said. “We got more information, the boundary conditions changed, we had to be flexible and make a new decision.”

PHILANTHROPY IN ACTION

Sustainable success usually requires generous partnership. Florida Tech is proud of the partners who are making new educational opportunities available for our students.



SEA OF POSSIBILITIES

Larry Pollack has pledged a \$2.5 million estate gift to support his endowment funds at Florida Tech. One is an undergraduate scholarship in the College of Engineering and Science that will support marine science and ocean engineering



Larry Pollack

students. Another is a graduate fellowship to support a graduate student in the same disciplines. He earned a Master of Science degree from Florida Tech in 1985. While he searched for a way to pay for graduate school, Florida Tech offered him a teaching assistant position within the departmental labs that produced a small but very helpful stipend. "It was great to get a paycheck while doing fun things. I have not forgotten that \$1,500 per quarter and want to pay it back many, many times over." The terrace at the new Folliard Alumni Center is being named in his honor as well.

DOING THE MATH

Ed and Sara Roos' \$1 million-plus gift will benefit students for years to come. Ed earned his master's degree in physics in 1972 from Florida Tech and was able to do so because of scholarships he received. That motivated him to give \$1 million back in his estate and to give an additional \$25,000 now to benefit the Dean's Fund. The endowed scholarship will support students in the College of Engineering and Science majoring in physics or mathematics.



Ed and Sara Roos



INVESTING IN HEALTH

The Winter Haven Hospital Foundation \$417,000 gift is supporting the College of Psychology and Liberal Arts. The grant funds a five-year partnership in which Florida Tech is helping to improve access to behavioral health services for the Winter Haven community through an internship program. Led by faculty member Patrick Aragon, this program attracts interns that may ultimately work in the community when they graduate.

Panthers Show Pride as Day of Giving Draws More Than 2,500 Donors

From across the United States and around the world, Florida Tech alumni showed their Panther Pride by making donations to their alma mater for Day of Giving on Nov. 19, 2020. The 24-hour event attracted more than 2,540 donors. Their donations and gifts received through the fall generated funds for essential Florida Tech needs.

Day of Giving pledges came in from 48 states and across the globe, from Argentina to Norway, with donations given to various groups and programs at the university.

With pledges and previous gifts, the top giving amount went to the Panther Fund, which exceeded \$91,000. Athletics raised over \$80,000. The Dean Funds, led by their advisory board members, raised \$73,500. An additional \$45,000 went to the student emergency relief fund. Among the colleges, the College of Engineering and Science led the way with more than \$41,000 pledged.

The importance of participation in Day of Giving goes beyond any particular amount of money raised. No matter the size of individual donations, the level of alumni participation overall is a key factor in how organizations, including the influential ranking publication *U.S. News & World Report*, perceive the success of a university and how they ultimately rank it.

Community Foundation for Brevard Awards Grants to Researchers

The Community Foundation for Brevard awarded two Florida Tech researchers a total of \$48,800 under its Medical Research Grant to Find Cause and/or Cure for Alzheimer's, Cancer, and Other Pervasive Diseases initiative. The competitive program is funded from the Kenneth R. Finken and Dorothy Hallam Finken Endowment Fund based at the Community Foundation.

The recipients are Karen Kim Guisbert and Eric Guisbert, faculty members in the

university's department of biomedical and chemical engineering and sciences. Each receives a \$24,400 grant.

Karen Kim Guisbert, an assistant professor, is working on the development of a targeted anticancer therapeutic for breast cancer. Eric Guisbert, an associate professor, is conducting research focused on testing a new strategy for treatment of Alzheimer's disease.

Over the last 13 years, Florida Tech researchers have been awarded 21 individual medical research grants via the Community Foundation that have a combined value of more than \$600,000.

Neha and Sanjay Rishi Foundation Establishes Endowed Scholarship

The Neha and Sanjay Rishi Charitable Foundation has established an endowed scholarship benefiting students attending Florida Tech. The scholarship will be awarded annually to an African American student showing financial need.



Neha and Sanjay Rishi

Sanjay Rishi, Ph.D., graduated from Florida Tech in 1985 with a master's degree in systems management.

Rishi is CEO, corporate solutions, Americas, for the real estate services company JLL. Sanjay joined JLL in 2018 from IBM, where he ran the cloud consulting services business. Prior to that, he was chief information officer and group vice president of strategic planning for Johnson Controls Automotive. He has also held roles as a partner for PwC and vice president for IBM Global Strategy. He joined the advisory board of the Bisk College of Business in 2020.

RESEARCH

HIGHLIGHTS

Discovery sparks innovation. University researchers are tackling challenges and finding fresh solutions to daunting problems.

State Funding for High-Tech Equipment Secured

A Florida Tech project central to the Sunshine State's identity and economic strength that will boost STEM and manufacturing education through cutting-edge technology received critical funding in the 2021–22 state budget, thanks to the efforts of legislators and the final approval of Gov. Ron DeSantis.

The university will receive \$2 million for its Biomedical Aerospace Manufacturing (BAM) specialized equipment project in the spending plan.

The BAM initiative will help secure cutting-edge equipment for Florida Tech's new Health Sciences Research Center and its Center for Advanced Manufacturing and Innovative

Design, creating availability across university programs for the biomedical, aerospace and manufacturing sectors.

Equipment such as bio tissue testing machines, specialized 3D printers and imaging devices procured over the next three to five years will provide a platform for exposing students to equipment Florida's targeted industries are using, and will be using, to develop new technologies and new jobs.

Providing technology access and enhanced capability for Florida Tech students, as well as for broader career and skill engagement programs, BAM will increase STEM workforce availability, hands-on project work in areas such as prosthetics and tissue generation, and career awareness for the growing

biomedical, aerospace and manufacturing targeted industries in Florida.

Cybersecurity Patent Looks to Protect Against New Threats

A patent involving Florida Tech faculty may protect growing computer networks with ever-growing cybersecurity threats.

Marco Carvalho, executive vice president and provost, and computer engineering and sciences associate professor Thomas Eskridge, working in collaboration with engineers from Raytheon BBN Technology Corp., have developed a "decision engine" to configure the best set of defenses to combat threats

against a system. The engine uses a genetic algorithm to search through several possible defense configurations and has an interface where users can interact and provide feedback on the direction and characteristics of the evolved solutions. The patent was awarded December 2020. The team also developed a patent-pending user interface that allows the operator to direct the genetic algorithm.

By using a genetic algorithm, the system can decide where to place defenses on the network based on the user's preferences, allowing for stronger and more efficient protection than seen in previous systems. Eskridge noted the team tested the application by using over 100 possible placements and configurations of defenses, with a set of criteria that evaluates how well they perform. The results

led to successful deployments via the algorithm's adaptability in providing defense against attacks.

Both Carvalho and Eskridge are members of the National Academy of Inventors (NAI), a member organization comprising U.S. and international universities, and governmental and nonprofit research institutes, with over 4,000 individual inventor members and fellows spanning more than 250 institutions worldwide. The NAI publishes the multidisciplinary journal *Technology and Innovation*, *Journal of the National Academy of Inventors*.

Researching Regolith for Plant Growth

For future Mars colonists to succeed, they must be able to grow at least some of their food. Researchers at Florida Tech are looking at how a variety of simulated Martian soil can support this necessity in preparation for an eventual stay on the red planet.

In a 2020 paper, the research team of ocean engineering and marine sciences associate professor Andrew Palmer, aeronautics assistant professor Brooke Wheeler and Florida Tech alumni

Ariana Eichler '19, '20 M.S., and Nathan Hadland '20 tested three simulants of Martian regolith, as the soil is known—JSC-MARS-1A, Mars Mojave and Mars Global Simulant (MGS). The initial results indicate that, contrary to previous research, not all three can support plant growth.

For example, MGS, widely considered to be among the most chemically and mineralogically accurate simulants available, was actually toxic to plants, despite various strategies to make it viable. Hadland discovered that the pH level of MGS was higher than other samples, which may have played a factor in the lack of growth. More importantly, the discovery that this simulant is unable to support plant growth suggests that our understanding of how to grow food on Mars is not as advanced as previously thought.

By showing that these simulants are not facilitating plant growth as well as hoped, the findings will give current and future researchers a roadmap for testing other simulants for their ability to support plant growth and help indicate what additional supplies must be transported to Mars for food production. For example, all of the simulants tested, like Mars itself, are largely devoid of nitrogen, a critical element for plant growth.

Palmer noted there are a variety of simulants made by companies and research groups, each with slightly different physical and chemical properties—much like the diverse regolith of the Martian surface. The team tested the ability of the three different simulants to support plant growth, and their findings will help us better understand the potential challenges of living on parts of Mars.

Nathan Hadland in the Astrobiology Lab

University Study Explains How Light Could Activate Neurons

Human brains have an average of 86 billion neurons. These nerve cells are interconnected at junctions known as synapses, and some neurons have as many as 10,000 such synapses. A key to understanding brain function is to have a better grasp of how this nonlogical arrangement of complex neurons leads to specific behaviors and cognitive function, including memory storage.

Recent advances that combined chemical applications with neurobiological techniques enabled the use of light as a trigger to turn on specific neurons by activating selected synapses. Chemical groups that effectively leashed active molecules like glutamate (a key molecule in learning and memory) helped control nerve signals by keeping them in an off state. On-demand, targeted light can unleash the active molecules that lead to turning on neurons, and thus pathways of interest. The key to the success of this procedure is intricately dependent on the efficacy of light at breaking molecular bonds.

The research groups of Nasri Nesnas and Roberto Peverati at Florida Tech have now been able to conduct accurate computational studies that revealed important details of how bonds break to release active molecules. This is extremely valuable to enable future designs of other molecules that can modulate brain signals. This broader understanding of light's ability to induce this type of chemical bond cleavage will lead to building systems that are far more sensitive to light, requiring smaller amounts of such agents and thereby minimizing any interference with other, neighboring neurons.

The collaborative study was published January 2021 in *Nature's Scientific Reports*.

Florida Tech's Pierpaolo Morgante, first author of the paper, was excited to learn that there are two pathways by which such process can occur. "I was surprised when I saw that there was some confusion in previous literature about this pathway, and I became interested in really understanding these mechanisms. I found out something really unusual."

Being able to understand the complex brain network helps clarify possible reasons behind elusive brain disorders such as

Alzheimer's disease, epilepsy, depression and other brain conditions.

Federal Grant Allows Florida Tech to Add High-Performance Computers

A team of Florida Tech faculty members has secured a National Science Foundation grant for \$569,921 to fund the acquisition of a high-performance computer cluster, which will serve as the hardware backbone of a computational science and engineering center the team will develop on campus.

The team is led by aerospace, physics and space sciences professor Marc Baarmand and includes chemistry assistant professor Roberto Peverati, mathematical sciences associate professor and head Munever Subasi, computer engineering and sciences professor Debasis Mitra, computer engineering and sciences associate professor Phillip Chan, computer engineering and sciences assistant professor Ersoy Subasi, aerospace, physics and space sciences professor Ming Zhang, ocean engineering and marine sciences professor Steven Lazarus and computer engineering and sciences professor Marius Silaghi.

Big data, defined as extremely large data sets that can be analyzed computationally to reveal patterns, trends and associations, is an increasingly important facet of science and engineering research. Florida Tech researchers are working to advance the university's computational tools, capacity and speed of computing machines to fully utilize this powerful tool.

The university is working to launch a multidisciplinary and interdisciplinary center with a computer cluster equipped with the latest technologies for high-performance computing (HPC) and data storage that will allow faculty, research staff and students to work in a collaborative environment to create new and innovative algorithms and techniques utilizing artificial intelligence (AI) and machine learning for conducting computational-intensive and big-data research in science and engineering disciplines.

The center will also address the future demands of hardware, AI and machine learning on both shallow and deep levels. The team would like to implement the center in the next three years.



CAMPUS ON THE MOVE

Forward movement is integral to progress. Hard work, expertise and dedication propel us to new heights.



Florida Tech Among Select U.S. Schools Recognized in Times Higher Education Rankings

Florida Tech was among just a handful of U.S. universities featured in the 2021 *Times Higher Education* Impact Rankings, a list dominated by international schools that highlights institutions' success in delivering research, stewardship, outreach and teaching in relation to the United Nation's 17 Sustainable Development Goals.

Overall, the rankings include 1,115 universities from 94 countries and regions. Florida Tech was ranked in four Sustainable Development Goals.

Life Below Water: This measures universities' research on life below water and their education on and support for aquatic ecosystems. Florida Tech was one of just 17 U.S. universities—including five from Florida—among 379 total entries. Research on life below water and supporting aquatic ecosystems through education and action were key metrics for this category.

Sustainable Cities and Communities: The focus of this ranking includes institutions' research on sustainability and their internal approaches to sustainability. Florida Tech was one of just 32 U.S. schools—including five from Florida—among the 656 ranked in total. Sustainable practices and research into sustainability were the primary measurements.

Climate Action: This ranking explores universities' research on climate change, their use of

energy and their preparations for dealing with the consequences of climate change. Among the 566 schools ranked were just 20 in the U.S., including Florida Tech and four other Florida schools. Metrics centered on research on climate action, low-carbon energy use and environmental education measures.

Reduced inequalities: This measure highlights universities' research on social inequalities, their policies on discrimination and their commitment to recruiting staff and students from underrepresented groups. There were 669 universities ranked, among them just 33 U.S. institutions, including five in Florida. Research, first-generation students and those from developing countries, and measures against discrimination were among the key metrics for this category.

Faculty Among Top 2 Percent of Scientists Worldwide

Ten faculty members currently or previously associated with Florida Tech have been named to a list from Stanford University that compiles the top 2% of scientists worldwide. Inclusion on the list is based on standardized academic citations, co-authorships and related composite metrics that gauge career-long impact.

Examining 22 scientific fields and 176 subfields, the Stanford report in the journal *PLOS Biology*, initially published in 2019 and updated in 2020, lists the following faculty members with Florida Tech affiliations:

- Ravi Agarwal, general mathematics
- Richard Aronson, marine biology and hydrobiology
- Mark Bush, paleontology
- Philip Chan, artificial intelligence and image processing
- Martin Glicksman, materials
- Larry Hench, materials
- V. Lakshmikantham, applied mathematics
- Yi Liao, general chemistry
- Steven Shaw, acoustics
- Robert van Woesik, marine biology and hydrobiology

Hench and Lakshmikantham have passed away. Agarwal is now on faculty at Texas A&M Kingsville.

The Stanford list includes more than 159,000 scientists from U.S. and international universities, businesses and other facilities.

Refresh Your Ride: New License Plate Unveiled

The university's Panther license plate, first introduced in 2003, is getting an updated look. The new plate will be available in all 67 Florida counties this year. Proceeds from sales will continue to benefit the university. See your local tag office for details.



Agarwal



Aronson



Bush



Chan



Glicksman



Hench



Lakshmikantham



Liao

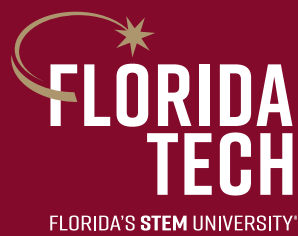


Shaw



van Woesik





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