Florida Tech Town

A magazine for Alumni and Friends of Florida Institute of Technology

WINTER 2016

THINK BIG:

The Catanese Legacy

TONY CATANESE DOESN'T BELIEVE IN SMALL IDEAS.

ONE BIG QUESTION

with Buzz Aldrin "MARS, WHY NOW?" p.8











WINTER 2016 • Volume 24, Issue 3

Departments

President's Perspective4
Two Cents 5
On Campus 8
Behind the Scenes12
Etc15
Athletics 16

Features

8

Mars, Why Now?

Florida Tech Research Professor of Aeronautics Buzz Aldrin discusses his vision for reaching the red planet.

18 Human-Centered Design Will Change Our World

Researchers with Florida Tech's School of Human-Centered Design, Innovation and Arts are developing three revolutionary projects.

20 Think Big: The Catanese Legacy

Reflecting on Anthony J. Catanese's impact and accomplishments as president of Florida Institute of Technology.

24 Campus Curiosities

There's the Florida Tech you know—the beautiful Botanical Garden, the majestic Olin quad—but look a little closer and discover the subtle, strange and sometimes unnoticed elements of campus.

GO GREEN, GET ONLINE!

Find expanded coverage, photos and videos at:

today.fit.edu











Alumni News

28 Homecoming 2015 Recap

32 From the FTAA President

34 AlumNotes and On the Road

37 Spotlight: Casey Turner

38 News from the FTAA Executive Director

Connect With Us

Florida Institute of Technology



/floridainstituteoftechnology



@floridatech



/floridatech

Florida Tech University Online



/FLTechUniversityOnline



@FLTechOnline



+floridatechonline

COVER PHOTO: Anthony J. Catanese's 14-year tenure as university president has been one of unprecedented growth and expansion. *Photo by Dominic Agostini*

In November, 700 prospective students and their families visited campus for Discovery Day. They had the opportunity to speak with admission and financial aid representatives, meet with faculty from their department of interest, tour campus, learn about student clubs and activities, and grab some face time with Pete.

Florida Tech TODAY

http://today.fit.edu

Florida Institute of Technology PRESIDENT AND CHIEF EXECUTIVE OFFICER

Anthony James Catanese, Ph.D., FAICP

EXECUTIVE VICE PRESIDENT AND CHIEF OPERATING OFFICER

T. Dwayne McCay, Ph.D.

VICE PRESIDENT FOR MARKETING AND COMMUNICATIONS

Wes Sumner

Florida Tech Today is published three times a year by Florida Tech's Office of Marketing and Communications and is distributed to over 60,000 readers.

MANAGING EDITOR/ART DIRECTOR Judi Tintera, jtintera@fit.edu EDITOR Christena Callahan '07 M.S., ccallaha@fit.edu CONTRIBUTING WRITERS Kim Bozik, Christena Callahan, Adam Lowenstein, Mitch Praxl, Shelley Preston, Sara Smith, Wes Sumper

PRODUCTION Rob Gribbroek, Kristie Kwong

WEB LAYOUT Christena Callahan, Joshua Culver

CIRCULATION Ali Faisal

PHOTOGRAPHY Dominic Agostini, Rashad Hickman, Christina Korp, Amanda Stratford. The Geocaching Logo is a registered trademark of Groundspeak, Inc. Used with permission.

Alumni Office

VICE PRESIDENT FOR ALUMNI RELATIONS

AND EXECUTIVE DIRECTOR, ALUMNI ASSOCIATION

Bino Campanini '90, '92 MBA 321-674-8434, bcampanini@fit.edu ASSOCIATE DIRECTOR Stephanie Bacon 321-674-7198, sbacon@fit.edu ASSISTANT DIRECTOR Marjorie Beckett '98, '08 MBA

321-674-7642, mbeckett@fit.edu

ALUMNI ENGAGEMENT OFFICER Stevie Pursell '12 MBA

321-674-6826, spursell@fit.edu

Have a Story Idea?

Email fltechtoday@fit.edu

Changing Addresses?

Don't leave copies of your alumni magazine behind. Send your new address to Florida Tech, Office of Development Services, 150 W. University Blvd., Melbourne, FL 32901-6975, advs@fit.edu

Unsubscribe

Please email *advs@fit.edu* if you no longer wish to receive this publication.



Florida Institute of Technology
High Tech with a Human Touch TM

www.fit.edu

© Copyright 2016 by Florida Institute of Technology. All rights reserved. Reproduction by any means whole or in part without permission is prohibited. For reprint information, contact Florida Tech Today at 321-674-8963, Fax 321-674-8548 or jtintera@fit.edu.



Florida Tech Today is printed on Sustainable Forestry Initiative (SFI)® certified paper.

Florida Institute of Technology is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, master's, education specialist and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Dectarty, Georgia Josal 7-040 7 coll 40-479-4500 for questions about the accreditation of Florida Institute of Technology is committed to nondiscrimination on the basis of race, color, ethnic or national origin, see, sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, protected veteran status, or other non-merit reasons in admissions, scholarship and loan programs, educational programs, athletic or other university sponsored programs or activities, and employment including employment of disability deverans and veterans of the Veteran face, a required by applicable laws. Contact the fills (X conditation at (321) 674-894.

PRESIDENT'S PERSPECTIVE



Dear Florida Tech Alumni and Friends,

I'm always impressed by what this university can accomplish through so many talented people working together with a shared vision. Alumni, faculty, staff, students, supporters—all have something to contribute.

We're fortunate to have business leaders from this community and beyond who care deeply about the mission of Florida Tech. Some of these key supporters graciously volunteer their time and expertise to serve on our board of trustees.

We're gratified to welcome three new trustees this spring.

First, Vik Verma, an alumnus and technology pioneer, will join us on the board. Currently chief executive officer of a Silicon Valley-based company, Vik has served on the board in the past, and we're glad to have him back. We're also joined by Mike Shah, an architect by training who has gone on to be a successful business leader and philanthropist. His friendship is greatly appreciated. And finally, I'm pleased to announce that retired four-star-general Ann Dunwoody has accepted the invitation to join our board of trustees. Also a graduate of our Extended Studies Program, General Dunwoody's accomplishments are numerous. We look forward to her leadership on the board.

Looking ahead, one of the highlights of the spring will surely be our annual Northrop Grumman Engineering and Science Student Design Showcase. That's our students' chance to shine as they display a range of innovative projects. Please mark your calendar and plan to join us April 8 in the Clemente Center.

Meanwhile, we'll also bring to a close our \$100 million "Create The Future" capital campaign April 23. Designed to raise money for priority needs of our university, including increasing the Florida Tech endowment, I'm impressed with the success we've been able to build through this campaign. Look for complete details in the next edition of *Florida Tech Today*.

I wish you every success as well. Thanks for your support of Florida Tech!

Sincerely yours,

A.J. Catanese, Ph.D., FAICP President & Chief Executive Officer



Ann Dunwoody



Mike Shah



Vik Verma



The painted game ball commemorates the Panthers' 28-26 Homecoming 2015 upset over the No. 1 ranked West Georgia Wolves.



President Catanese poses with two-time IHRA Jet Dragster World Champion Elaine Larsen and the Larsen Motorsports team. Larsen is driving the Florida Tech jet dragster for 2016 races.

Feedback From Our Readers

We welcome your input on the magazine. Have a comment about something you've read? Want to share a memory about your FIT days? Email us at filtechtoday@fit.edu.



FOOTBALL AND HOMECOMING

"Yes, at an engineering school where the coeds were a tiny minority, what healthy male student wouldn't turn out to watch the ladies play tag football?

#70 in the photo is **BERNIECE** ("Benny") **NYENHUIS**, class of 1974, Ocean Engineering.

Bet you don't know what "GDI" stands for on their jerseys ...

It stands for "God Damn Independents."

They formed their own loose organization as they were tired of being pestered to join sororities.

By the way, the GDI's won that game.

Yes, I was there. I'm **DOUG HOWER**, class of 1974, Ocean Engineering.

Upon graduation in 1974, I asked #70 to be my bride. She said yes and we have been happily married ever since.

Just thought you should know since you asked ..."

-Doug Hower '74



Florida Tech Launches Center for Advanced Manufacturing and Innovative Design

Florida Tech will use a \$1.4 million grant from the U.S. Economic Development Administration to launch the Center for Advanced Manufacturing and Innovative Design.

This 100,000-square-foot facility in the former Intersil building in Palm Bay will advance the capabilities of U.S. companies in next-generation manufacturing methods while ensuring students are exposed to technology and ideas that will influence the global manufacturing marketplace for years to come.

Known as CAMID, the facility at Florida Tech's Research and Development Center on Palm Bay Road will enhance the digital product development and operations of manufacturers as well as their supply chains. CAMID will also assist corporate clients and students.

Commerce Secretary Penny
Pritzker recognized the importance of
this endeavor, saying in announcing
the grant that the facility "will help
ensure that American manufacturing
continues to thrive."

"CAMID will bring together industry, students and professors in a facility that will provide product development and manufacturing hands-on assistance, education and training, and research on 21st-century technologies that will make and keep manufacturers globally competitive," said MICHAEL GRIEVES, CAMID director and long-time executive in

technical fields with an emphasis on start-ups.

The facility will offer the latest digital modeling, simulation and visualization technologies as well as computer-driven manufacturing equipment. It will operate under the "hoteling" model that allows companies to use the facility as needed. When the work is done, companies will return to their own operations.

"With CAMID, we are creating a system of services, equipment and expertise that exemplifies Florida Tech's credo of high tech with a human touch," said president and CEO

ANTHONY J. CATANESE.

DWAYNE MCCAY, Florida Tech's executive vice president and COO, said CAMID will surely become a critical asset for both the business community and the university.

"It will support industrial partners with training and advanced manufacturing techniques. It will educate students and even displaced workers on advanced manufacturing, process improvement and other areas. And it will allow us to perform groundbreaking research on new best practices for advanced and cyberenabled manufacturing."

With CAMID, we are creating a system of services, equipment and expertise that exemplifies Florida Tech's credo of high tech with a human touch.

—President and CEO Anthony J. Catanese





The high bay includes:

- 20' x 16' overhead door
- Spray booth
- Welding stations
- Parts cleaning and acid etching area
- 2.5 ton overhead crane
- Project storage space
- Four electronics/project team rooms

The Harris Student Design Center was unveiled on Nov. 20. *Left to right*: Greg Tsark, vice president for facilities operations; Alton Romig Jr., executive officer, National Academy of Engineering; Bill Brown, Harris Corp. chairman, president and CEO; Anthony Catanese; Florida Tech president and CEO; T. Dwayne McCay, Florida Tech executive vice president and COO; Martin Glicksman, dean, College of Engineering; Hamid Rassoul, dean, College of Science; and Pierre Larochelle, associate dean, College of Engineering.

Batchelor Foundation Sends Miami Youth Flying

Furthering its commitment to aviation and youth, the Batchelor Foundation of Miami awarded FIT a grant to host 20 middle and high school students from Miami at FIT's Summer Aviation Camp in Melbourne in 2015 and again in 2016. Young people from Overtown Youth Center, Honeyshine, Inc. and Touching Miami with Love



converged on the aviation center and Florida Tech campus this past summer to enjoy a week of flying fun. They can't wait to return. Campers toured Embraer and Jet Blue, practiced approaches, landing and takeoffs in a simulator, enjoyed a flight to Orlando to tour Orlando Tracon and took a flight to NASA's Kennedy Space Center for a tour of both NASA and the Space Center. Campers also built and launched model rockets and learned about aerobatic flying.

The relationship between the Batchelor Foundation and Florida Tech began many years ago when the foundation's founder gave the university its first flight simulator.

Mars, Why Now?

I WANT TO SHARE WITH YOU MY VISION OF OUR FUTURE IN SPACE. BUT BEFORE THAT, LET'S FIRST ROLL BACK THE CALENDAR.

For me, speeches by
President John F. Kennedy back
in 1961 and 1962 set the tone
for shaping America's space
agenda. We chose to go to
the moon, the president said,
not because it was easy, but
because it was hard to do.

Those powerful words from over 50 years ago still inspire me, and they need to be evoked again. It's time to relight the can-do spirit of space exploration, one that is focused on a determined goal that makes possible the first footfall on Mars.

I am a very fortunate person. When Neil Armstrong and I became the first humans to walk on the moon in July 1969, that milestone of progress was a transformative moment ... for all of humanity. People often ask just how lonely it was to be so far from Earth, taking in stride the eerie surroundings of what I called "magnificent desolation."

Yes, we stood there alone, taking in the moon's

inhospitable landscape. However, along with our Apollo 11 colleague, Mike Collins who remained in lunar orbit, we three made that journey thanks to the tireless effort of some 400,000 people. We were in the hearts and minds of close to a billion people back on Earth that monitored our journey of exploration.

All of us shared a universal dream of accomplishing a great goal. Project Apollo represented America at its best—a unified enterprise that relied on teamwork. That effort spotlighted that humankind can undertake difficult and seemingly unattainable ambitions ... and succeed.

I consider myself a global statesman for space. In my travels throughout the country and the world, it's clear there's need to remind people what a strong, vibrant and cuttingedge space agenda means for the 21st century. A vision-focused, well-funded American space program represents

U.S. global leadership, adds to the country's technological strength and promotes educational excellence.

I contend that there's a countdown under way, an ideal time to seize a moment in all the history of humanity.

The occasion is the 50th anniversary of humanity's first landing on the moon. The U.S. president can utter these momentous words: "I believe this nation should commit itself, within two decades, to commencing an America-led, permanent presence on the planet Mars."

Last August, I was very pleased to formalize with Florida Institute of Technology the establishment of the Buzz Aldrin Space Institute. Our joint task is to promote the settlement of Mars through research. Such a plan makes use of my concept called Cycling Pathways to Occupy Mars. That proposed architecture establishes pathways of progressive

Enriching Research

NEW GRANTS FOR SPACE RESEARCH

KUNAL MITRA and **JONATHAN WHITLOW** were granted \$25,000 each from Space Florida and the NASA Florida Space Grant Consortium with matching funds from Florida Tech for research projects related to space exploration and technology.



INVASION OF THE KING CRABS

King crabs may soon become high-level predators in Antarctic marine ecosystems where they haven't played a role in tens of millions of years, according to new research led by **RICHARD ARONSON**. Barriers such as salinity levels, types of sediments on the sea floor or food resources would prevent the predatory crustaceans from arriving if the water became warm enough, the study found.

international missions to low Earth orbit, cis-lunar space, asteroids, Venus, to Phobos—a moon of Mars—and eventually to the initial landing and eventual permanence of humans on the surface of the red planet.

That challenge is not only monumental, but historic.

It is worth remembering that FIT was founded on Sept. 22, 1958. A little over a week later, on Oct. 1, 1958, that was the official start date of NASA. So by tapping not only FIT's heritage but its wellspring of gifted students, faculty and alumni, I look forward to working together on establishing a pathway to homesteading Mars.

Of late, I have embraced a view—one that fits well with the FIT watchwords of "high tech with a human touch." And that is, "no dream is too high for those with their eyes in the sky!"



Buzz Aldrin, best known for his Apollo 11 moonwalk, holds a doctoral degree in astronautics and continues to wield influence as an international advocate of space science and planetary exploration. Aldrin has joined the university faculty as Florida Tech Research **Professor of Aeronautics** and will serve as Senior Faculty Advisor for the Institute. Buzz Aldrin and co-author, Leonard David, wrote Mission to Mars - My Vision for Space Exploration, published in 2013 by the **National Geographic** Society. Aldrin's new children's book, Welcome to Mars: Making a Home on the Red Planet, co-authored with Marianne Dyson, was published in September 2015.

Christina Korp photo

REMOTE RAINFORESTS UNREACHED

Research from **MARK BUSH** and an international team of scientists showed indigenous people in the Amazon prior to European contact impacted riverside forests only within a day's walk from a river. The study refutes an emerging theory that Amazonian rainforests are the result of ancient managed landscapes—a notion that undermines the ecological view of Amazon forests as fragile ecosystems.



DEMYSTIFYING MASSIVE STARS

Observations using NASA's Chandra X-ray Observatory revealed that the unusually large magnetosphere around an O-type star called NGC 1624-2 contains a raging storm of extreme stellar winds and dense plasma that gobbles up X-rays before they can escape into space. The findings, led by assistant professor **VÉRONIQUE PETIT**, may help scientists better understand the lifecycle of certain massive stars.



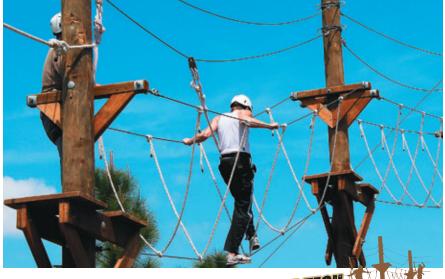
JAPANESE WAR KIMONO COLLECTION DONATED TO RUTH FUNK CENTER

Erik Jacobsen of Larkspur, California, has donated a stunning collection of Japanese war propaganda kimono, a wide variety of modern Japanese kimono and textile pieces valued at \$115,750 to the Ruth Funk Center for Textile Arts. This is the largest single gift ever donated to the Funk Center. The textiles, dated from the years of the Asia-Pacific War (1931—1945) are characterized by their graphic patterns and militaristic imagery. These omoshirogara, or "novelty

designs," include a variety of recognizable military motifs, from weapons to soldiers, war planes and slogans, aimed at the promotion of nationalism and the war effort, and the indoctrination of Japanese citizens. These works provide an important lens through which to view the civilian role in propagating design and fashion trends during times of war.

PNC BANK'S GROW UP GREAT INITIATIVE SUPPORTS ARTS AT FOOSANER

PNC Bank has made a \$5,000 grant to support STEAM (Science, Technology, Engineering, Art and Mathematics) Saturday at the Foosaner Art Museum in 2016. Designed for parents and children, the free programs will engage families with hands-on activities that draw upon both art and the sciences. The grant is being made from PNC's Grow Up Great Initiative, which is dedicated to helping prepare America's youngest children for great things in school and life.



EXPERT ADVICE:

Leadership Strategies

The Florida Tech Challenge Course empowers participants to face mentally and physically challenging obstacles, while being immersed in an 80-acre preserve of pure Florida wilderness in the Trailhead Preserve in Fellsmere. Florida Tech Today caught up with course instructors DAVE BEACH and SCOTT CALDWELL to discuss leadership strategies for success.

Be Yourself: Great leaders come in all types, shapes, sizes and flavors. A quiet professional can be just as effective as a charismatic one. Recognize your style, strengths and limitations, and play to your strengths. You can always find someone who is good at what you are not. Find them, empower them and let them run with the ball; it is part of developing your team.

Communicate Clearly: Subordinates must understand exactly what you want accomplished and when it must be completed. Often success lies in communicating the details; without them, you may not get the product you envisioned. Share why a task needs to be completed. If subordinates understand the significance of the task, they will be more motivated to complete it.

Foster Initiative: Initiative in subordinates is one of the most valuable and desired traits. General George Patton once said, "Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity." Subordinates who have the freedom to identify and take action on tasks will free the leader from these duties and provide the subordinates with a sense of ownership.

Going from plan A to B to C to D cannot only be curious, but also enjoyable and verv rewarding along the way. If we embrace the challenges and changes of life, then we can truly achieve much more than anticipated, not just in our careers, but in our personal relationships as well.

—Dave Force '73, principal at San Antonio, Texas-based Constructive Behavioral Consulting, who lectured on campus this fall about life's unpredictability and how we can overcome the inevitable hurdles to our best-laid plans.



TASTES OF THE SEASON

This year's Tastes of the Season event moved to larger, more spacious quarters to accommodate the growing number of supporters who extend themselves generously during the year to assist Florida Tech. Members of the Ad Astra and Galaxy Societies are among the university's most ardent supporters and the annual Taste of the Seasons event honors them as well as other donors who support the Panther Fund and by doing so, provide for scholarships and areas of greatest need at the university. To learn more about Florida Tech's donor societies, please visit http://give.fit.edu/clubs-and-societies.









(Top) President and Mrs. Catanese, The Shahs, (Bottom) Teresa McNeight and Paula Reilova, The Dunns



Doug Flutie Golf Tournament a Success

Corporate and community leaders came together on the Ritz-Carlton Orlando Grande Lakes championship course for the inaugural Doug Flutie Orlando Golf Tournament to benefit The Scott Center for Autism Treatment and the Doug Flutie Jr. Foundation for Autism.

Held on Sept. 28, 2015, the proceeds supported the work of The Scott Center and the Flutie Foundation to assist children and families dealing with autism. More than 100 golfers took on the challenging 18-hole layout, with each having the opportunity to play a hole with Heisman Trophy winner and Florida Tech trustee **DOUG FLUTIE**.

The winning foursome was Dan Renfro, John Thomas, Josh Thomas and Matthew Williams, while Anthony Romero won the prize for the longest drive. Renfro also earned the Closest to the Pin honors.



Along with the Flutie Tournament, a raffle benefiting The Scott Center and the Flutie Foundation for Autism awarded a trip to Super Bowl 50 in northern California as its grand prize. Doug Flutie and his wife, Laurie, drew the winning ticket from among hundreds of entries at Florida Tech's homecoming football game on Nov. 7. The winner was Leonard Bakker of Berkeley, California.

FINKEN ENDOWMENT FUNDS ALZHEIMER'S AND CANCER RESEARCH

The Community Foundation for Brevard awarded a \$60,000 grant from the Kenneth R. Finken and Dorothy Hallam Finken Endowment Fund to Shaohua Xu, associate professor of biological sciences, and Eric Guisbert, assistant professor of biological sciences, for cause-and-cure projects focused on Alzheimer's disease and cancer research.



From left: Shaohua Xu, biological sciences associate professor; Eric Guisbert, biological sciences assistant professor; Anthony J. Catanese, Florida Tech president and CEO; Lisa Davidson, grants and program manager for the Community Foundation for Brevard; and Linda May, president, L. Mayco Inc. and vice chair of the board of the Community Foundation for Brevard.

Behind the Scenes

During Homecoming, the Clemente Center transforms from a varsity gym of baskets and bleachers to a first rate, gala-worthy venue. Prep begins four days in advance. The moment the final buzzer sounds for the last basketball practice of the week, teams of staff and student workers begin stowing the bleachers, folding up the basketball hoops, covering the wooden gym floor and setting the stage. The total transformation involves:

Flooring: Covering the entire 18,375-square-foot gym floor requires approximately 410 individual sheets of protective covering.

Tables: This year's gala included a total of 69 tables—53, 60-inch 8-tops; 14 72-inch 10-tops; two, 84-inch 12-tops.

Décor: Attendees enjoyed a trip around the world complete with maps, luggage, international landmarks and more.

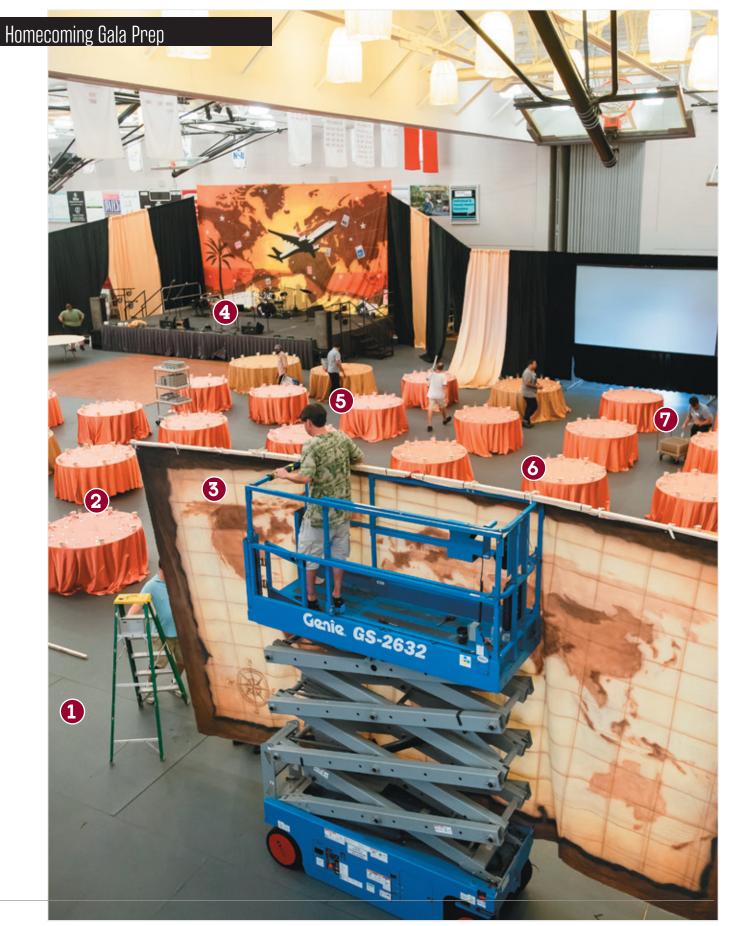
The 32-by-20 stage and 20-by-20 dance floor were used for both the Thursday night student talent show and the Saturday night gala.

Staff: It took a team of 30 people 92 hours over the course of five days to transform the space from start to finish.

Place Settings: 3,500 pieces of flatware were polished before and after the event.

Catering: 40 servers worked from 2 p.m. to 2 a.m. and served 250 pounds of chicken.

View time-lapse videos of Homecoming prep at: https://youtu.be/ifn0GLk4w14 and view the talent show set-up at https://youtu.be/6LQP-xZ3T5o





A STELLAR SUCCESS!

FLORIDA TECH'S FIRST DAY OF GIVING TOPPED THE CHARTS AND SAW ALUMNI SOARING INTO SPACE!

Over 24 hours, beginning with alumni visiting the dayofgiving.fit.edu website as soon as it went live at midnight on Dec. 1, 1,499 donors made a donation, watched their own personal avatar astronaut blast off into space and shouted out to their friends on social media to encourage them to give. Alumni gave to support the Panther Fund, which helps to meet the university's greatest areas of need, including financial aid, research and student activities.

Donors engaged in spirited competition to help their college win the \$15,000 grand prize to the dean's discretionary fund for the highest percentage of participation. First place went to the College of Aeronautics after a fierce battle with the Bisk College of Business for the top spot. All of the colleges, as well as athletics, the museums, the library, WFIT, the botanical garden and weVENTURE made their goals and were awarded discretionary funds for their accomplishment.

The Class of 2015 had the highest number of participants—showing the galaxy just how proud they are of their Florida Tech degree. More than 60 different countries were represented in the mix of donors. The U.S. took the lead spot followed by Turkey, the United Kingdom, India and Canada.

If you weren't able to participate on Dec. 1, there is still time! The number of alumni who donate has a direct impact on university rankings by publications such as *U.S. News & World Report*. Visit give.fit.edu/dayofgiving to make a gift online or send in the business reply envelope enclosed with this issue of the magazine. Gifts received by April 30 will be counted in our current reporting cycle.

give.fit.edu/dayofgiving



A 'TOP TECHNICAL INSTITUTE'

Florida Tech is again among the nation's "Top Technical Institutes" in the 2016 *Fiske Guide to Colleges*, earning a spot in the influential annual directory's list alongside Massachusetts Institute of Technology, Rensselaer Polytechnic Institute and just 14 other schools from across the country.

MOST INTERNATIONALLY DIVERSE

U.S. News & World Report rated Florida Tech the most internationally diverse undergraduate student body in the nation in its 2016 "Best Colleges" rankings. For the sixth consecutive year, the publication also named Florida Tech a Tier One Best National University.

AUTISM ADVISOR

This fall, The Scott Center for Autism Treatment launched AutismAdvisor.org, an online resource for parents and caregivers of children with autism. Users can discover topics and tool kits by the experts, along with videos from parents discussing their challenges, experiences and successes.

11th Annual Botanical Fest Save the Date: March 5, 2016

Master gardeners will be on hand to answer questions

Tours of the Jungle available hourly

Over 40 vendors

Over 100 volunteers to assist shoppers & garden quests



Hidden Treasure

As preparations began for the creation of the library's new Digital Scholarship Lab, a hidden treasure share your story about revealed itself in the area that was previously the Applied Computing Center. A hint of color behind a row of storage cabinets belied an elaborate one-of-a-kind wall mural created in 2007 by acclaimed artist Frits Van Eeden and students in a visual communication course taught by Nikki Hoier. The mural—a collaboration between Van Eeden, Hoier, students in the course and even others who studied in the space nearby—was "a community canvas of free thought," says Hoier.

wastawv@fit.edu or Angela Taylor, Evans Library director of enabling infrastructure, at ataylor@fit.edu.

For more information

about this mural or to

it, contact Wastawy at

It took a feat of brains and brawn to move the nearly 12' x 7' masterpiece that was painted directly on the drywall to a new home at the entrance to the Digital Scholarship Lab on the Evans Library's second floor. Working with art curators from the FIT museums and the university's expert carpenters, dean of libraries Sohair Wastawy and the library team formulated a plan to frame out the mural on the front, open the wall from the back, cut through the metal studs and move the entire wall (studs and all). The result: a piece of Florida Tech history saved!

TED*FloridaTech

High tech with a human touch meets ideas worth sharing in the TEDxFlorida Tech program. These university-organized public events combine TEDTalks video and live speakers to spark deep discussion and connection in a small group setting. View the spring schedule at tedxfloridatech.org.





The Panthers won two games over top-five ranked teams and finished 7-4 overall in 2015.

One for the Record Books

Panthers' season excites fans and gives them even more optimism for the future

In 2014 Florida Tech football proved that it could compete with any team in the Gulf South Conference, and it put a scare in some of the top teams in NCAA Division II. In 2015, the program's third season, the Panthers established themselves as a team that is capable of not just hanging around with those teams but winning those games and competing for a conference championship.

Although the Panthers ultimately came up one game short of staking claim to a GSC title and being selected for postseason play, to call the season anything but a success would be selling what the team accomplished incredibly short.

FIT's will was tested early, suffering a number of injuries to key components, including all-conference players in quarterback Mark Cato and running back Trevor Sand in the opening game against Newberry. Even in the absence of so many important pieces, FIT managed to put itself in a position to tie the game as time expired. Former soccer star Drake Hillman stepped in for his first-ever field goal attempt and gave it plenty of leg. Unfortunately, the Englishman's 51-yard attempt struck the left upright, handing the Panthers their first loss of the season.

With a pair of defeats to Division I opponent Southeastern Louisiana and Division II power North Alabama sandwiching a 37-0 thumping of Warner, FIT put itself in a big hole at 1-3 overall.

However, the Panthers didn't lose faith. Florida Tech would go on a program-best six-game winning streak to get back in the thick of the conference race.

The journey started in Cleveland, Mississippi, where FIT matched up with perennial powerhouse No. 5 Delta State. Using a 41-17 run, the Panthers claimed the victory, holding off a late push for a 41-37 win. Florida Tech became the first

team in three years to defeat the Statesmen on their home field.

The Panthers continued the momentum by rattling off four more wins in a row over West Alabama, Fort Valley State, Mississippi College and Shorter.

The following week would present the largest challenge of them all. Not only was it Senior Day and FIT's annual Homecoming Game but the Panthers were also tasked with facing No. 1 West Georgia at Florida Tech Panther Stadium. Playing in front of a national audience on ESPN3 and the WatchESPN app, Florida Tech jumped out early to a 28-6 lead. FIT held off a furious comeback for a 26-28 win, handing the Wolves their first loss of the season.

"Every game is one that you want to win, but there's something special about the big games," said Cato. "We went into that game knowing West Georgia was beatable, and we did what was needed to win."

Unfortunately, the Panthers were unable to lock up a share of the GSC title and a playoff berth the following week as FIT lost at Valdosta State 39-21 in the regular season finale.

Despite falling just short of their goals, head coach Steve Englehart showed nothing but pride in his team's season.

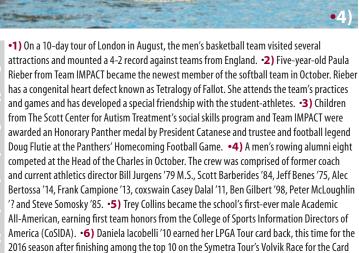
"I'm happy with the way our team competed this year and fought back after a 1-3 start," he said. "There were times throughout the year that I think we played as well as anyone in the country. This year was a great momentum builder for the future."

Though the annals of FIT football lore are relatively short, the 2015 season was certainly one for the books..

—Mitch Praxl







money list in October. She was previously on the LPGA Tour in 2013. •7) Quarterback Mark



Fresh off his second straight **Gulf South Conference Coach** of the Year Award, COACH **ENGLEHART** and the football team were featured by Enterprise Rent-A-Car in a video highlighting their partnership with the Boys and Girls Club of Indian River County.



Having gained experience coaching at the high school and college ranks, JASON MUNSCH was named the new head track & field coach in October, Track & field coaches PETE

MAZZONE and JA'MAR WATSON will continue to coordinate the long-distance runners and throwers, respectively.

ARIELLE GUNDERSON (Top) and KATIE REID '15 M.S. were FIT's first-ever women's lacrosse players to earn Intercollegiate Women's Lacrosse Coaches Association Academic Honor Roll status for posting a cumulative GPA of 3.5 or higher through the

spring 2015 semester.





Human-Centered Design Will Change Our World

THREE PROJECTS FROM FLORIDA TECH'S SCHOOL OF HUMAN-CENTERED DESIGN, INNOVATION & ARTS



Human-centered design teaches moving from 20th century automation (which led to classical, corrective human factors and ergonomics) to 21st century autonomy (which is leading to modern human-systems integration).

The modern evolution of things, in nine sentences:

- 1) The first half of the 20th century, everything was mechanical.
- 2) Back then, a car engine was almost entirely mechanical, for example: rotors, pistons, tubes, mechanical parts and a few wires.
- 3) As that century came to an end, the mechanical was now joined, later in the process, by the electronic and early computers.
- 4) In other words, there was a shift from hardware to software.
- 5) Car engines now included, and required, computers.
- 6) Since the beginning of the 21st century, we have shifted dramatically again: software is now the starting point.
- 7) Computer-aided design, modeling and simulation are commonly used.
- 8) Cars, nevermind their engines, are now designed and "driven" without even leaving the computer screen.
- 9) The era of "virtual engineering" has arrived.

"This," said **Guy André Boy**, dean of Florida Institute of Technology's School of Human-Centered Design, Innovation & Arts, "is extremely powerful, because we can test human-systems integration at design time."

"In other words," Boy continued, "we are doing human-centered design."

Within the offices and labs at Boy's school, in rooms filled with screens and simulators, 3-D printers and white boards, he and others are harnessing that revolution in ways that will someday change very fundamental things about our world.

Air travel. Space flight. Energy systems. Classrooms. Crisis management.

Here is a look at three projects under development.

ONBOARD WEATHER SITUATION AWARENESS SYSTEM

The volume of air traffic has increased steadily for three decades, averaging 5 percent growth per year over that time—and double digits in some places, such as Asia. That leads to overcapacity at airports.

Add to the increasingly crowded skies the ultimate X-factor—weather—which is behind nearly two-thirds of delays, and it is no wonder that air travel leaves travelers frustrated and exhausted.

Enter the Onboard Weather Situation Awareness System, or OWSAS. In concert with two massive programs that use satellite data (instead of radar) for air traffic control—the Next Generation Air Transportation System in the U.S., known as NextGen, and the European Single European Sky Air Traffic Management Research, or SESAR—the tablet-based OWSAS will bring unprecedented weather awareness into the cockpit.

(Boy was a member of the Aircraft Working Group of the Joint Planning and Development Office, or JPDO, anticipating NextGen commercial aircraft flight deck requirements, and he remains a member of the Scientific Committee of SESAR.)



HOW IT WILL WORK: Used by the first officer or co-pilot who is not flying the plane, OWSAS will offer interactive 3-D graphics showing weather and, in a layer of data that takes the program beyond a simple weather app, will also show the trajectory of their airplane and of other airplanes. Pilots could see route conflicts and weather concerns before the ground-based controllers see them and then use OWSAS to chart a better course.

The success of OWSAS, Boy said, is tied to increased use of authority sharing, a practice that would have air traffic control become more about air traffic management, with some duties now held by ground-based controllers shifted to pilots and first officers on planes. In fact, the entire airspace organization is being re-thought.

WHY IT IS IMPORTANT: Efficiency, in flight operations, scheduling and fuel use. Safety, as OWSAS allows for better route and weather management, fewer planes circling above airports, waiting to land. Passenger comfort: the 3-D weather information, which comes sooner than data generated from the plane's nose-mounted radar, would allow pilots to better avoid storms and turbulence and arrive at their destinations faster.

ADAPTIVE SPACESHIP COCKPIT SIMULATOR

Design the right thing.

That's a key facet of the philosophy of human-centered design, and it is achieved in part by the use of simulators.

Ondrej Doule, an assistant professor at the School of Human-Centered Design, Innovation & Arts, is developing a new type of simulator that could help astronauts make the most of their time in space and improve efficiency and safety during human spaceflight missions. Called the Adaptive Spaceship Cockpit Simulator, the device would allow a spacesuit-clad person to explore human-system integration in a variety of spaceship cockpits—that's the "adaptive" in the name—during the simulated motion of human spaceflight.

HOW IT WORKS: The participant would be strapped into a seat attached, gyroscope-like, to the center of a large ring. He would be moved to different positions and rotations, where he would then interact with a model spaceship cockpit or other elements of the vehicle.

WHY IT IS IMPORTANT: As we look toward long-duration space flight, it is essential that scientists and others understand how astronauts on these missions perceive and input information. After all, on months-long flights to Mars, for example, the astronaut will be required to handle unforeseen and risky situations without ground control.

This is a good example of what human-centered design teaches: moving from 20th century automation (which led to classical, corrective human factors and ergonomics) to 21st century autonomy (which is leading to modern human-systems integration).

"This is about figuring out the best way to communicate with the spaceship in any possible scenario," Doule said.

Which input and display system is most efficient in the complex environment of human spaceflight that is affecting the body and perception even as gravity changes? A joystick? A mouse? A track ball? Which communication system is fastest and safest? Wearing gloves and a helmet, dealing with the motion in a cockpit—what will work best as the astronaut interacts with the spaceship systems?

Understanding that could shape our success with future space exploration, commercial mission and even suborbital space travel.

SCORE

Named with a nod toward the collaboration exemplified by an orchestra, this tool is something that brings human-centered design to the design process itself. It is being developed as part of a project centered on developing a nuclear reactor, something called the Integral Inherently Safe Light Water Reactor.

Involving 36 people, including nuclear, electrical and mechanical engineers, safety experts, human factors folks, the overall project highlights the challenges of ensuring project members tasked with very different duties still understand the overall project and how their particular work fits in.

HOW IT WORKS: SCORE is meant to help manage complex projects. A computer-based system, this tool will document the processes and solutions associated with each step of a project and allow for communication with exactly the right person. Information will be shared via intranet with participants.

Visually and structurally, SCORE has four areas: One is the design itself; in this case, a 3-D rendering of the reactor under construction that users can explore and manipulate using touch screens and other input methods. The second is called "rationalization," and it highlights the reason behind decisions—"why we did that." This will facilitate the work of designers. The third space is an inventory of all the parts involved in the project; and the fourth highlights functionalities: users can see simulations of the system actually working.

WHY IT IS IMPORTANT: SCORE brings together two concepts that have long been separated: a holistic focus that shows how everything works together, and a more granular focus that presents detailed information.

As contrary as those two areas are, this dual focus is essential, Boy said, and crucial to support human-systems integration. "Project participants need to see connections among things," he said.

Whether nuclear reactors, jet planes or other complex projects, seeing those connections is an essential—and traditionally, an underutilized—approach. Making it front and center to the design process will eventually streamline the process and vastly improve the final results.

"We are developing a system that supports participatory design," Boy said. "This is what human-centered design should do."

Adam Lowenstein

FLORIDA TECH TODAY The state of the state o

2002

Anthony James Catanese, Ph.D. becomes the fourth president of the university. Catanese joins Florida Tech after a dozen successful years as the president of Florida Atlantic University. A well-regarded urban planner, Catanese also holds the position of professor in the Nathan M. Bisk College of Business. He is a prolific writer, having authored 13 books, 65 journal articles and over 100 research reports.

2003

Construction is completed on seven new residence halls, which are named for each of the seven fallen astronauts of the Shuttle *Columbia* and dedicated to their memory.

2004



University launches Panther Pride Florida Tech license plate.

2005

F.W. Olin Physical Sciences Center opens.

2006

Buehler Trust donates \$1.5 million to fund a training and research center at Melbourne International Airport. Ruth Funk donates \$1.25 million to create a textiles museum.

2007

Kicked off \$50 million capital campaign.

Online undergraduate and MBA degree programs launch through Bisk Education.

The Catanese Legacy

TONY CATANESE DOESN'T BELIEVE IN SMALL IDEAS.

A favorite quote, from famed Chicago architect Daniel Burnham, best captures his credo: "Make no little plans. They have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work ... remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty. Think big."

"I think that's great advice for life—whether you're designing a metropolis or managing a university," Catanese said. "Set big goals and then work hard to achieve them."

Himself an urban planner, Catanese's career is a case study in success. As he and wife, Sara, prepare to conclude 14 years as Florida Tech's first family, thinking big has been the hallmark of all they have accomplished.

Continued on page 22



2008

Groundbreaking for The Scott Center for Autism Treatment, Ruth Funk Center for Textile Arts and Harris Center for Science and Engineering.



Construction begins on the Emil Buehler Center for Aviation Training and Research at Melbourne International Airport.

The Ortega reflecting telescope, one of the largest research telescopes in Florida, is installed.

2009

College of Business becomes Nathan M. Bisk College of Business.

Ruth Funk Center for Textile Arts opens.

Emil Buehler Center for Aviation Training and Research established at Melbourne International Airport.

Golden Anniversary Campaign concludes, nearly \$60 million raised.

The Scott Center for Autism Treatment opens.

Harris Center for Science and Engineering and, within it, Harris Institute for Assured Information, opens.



2010

Football Program initiated.

University named FAA Center of Excellence for Commercial Space Transportation.

Florida Tech is unique in the history of American higher education, (and) has a big future ahead. Sara and I have been privileged to be a part of this outstanding success.

Continued from page 20

When the Cataneses arrived in July 2002, the campus was poised for growth. And, fresh from a dozen years as president of Florida Atlantic University, Catanese was ready for new challenges. Everyone's expectations were high. By the end of 2003, Catanese had assembled an administrative team including **T. DWAYNE MCCAY** as provost and chief academic officer. The goal was clear—elevate the high-quality institution from one of regional respect to international acclaim.

"Tony has set the table, and given us an important foundation upon which we must build," said McCay, who has been named Catanese's successor. "His leadership has been nothing less than transformational."

"We knew it would take time, but by cultivating the right mix of outstanding faculty leading a student-centered educational focus including hands-on research experience, it was clear from the beginning that the recipe would work," Catanese said.

And worked it has. Florida Tech earns numerous educational accolades each year, most prestigious of which is its status as a Tier One Best National University, awarded by *U.S. News & World Report*. The honors are independent confirmation that the success continues.

While success has continued to grow on campus, Sara Catanese has remained active not only at the university but in the community as a volunteer, serving on the board of the Brevard Symphony Orchestra and the former Brevard Art Museum. She has worked tirelessly with several local charity groups.

Meanwhile, one of Catanese's passions has been integrating the arts into technology education.

"We like to say that we educate the 'whole brain' at Florida Tech," Catanese said. "I have always believed that in order

to receive a well-rounded education, the arts and sciences must be balanced in the curriculum. Appreciating the arts adds value to all of life's experiences." Himself a percussionist and founder of the all-faculty band TWITCHY, Catanese knows performing is enriching.

With that in mind, Catanese added a music program at Florida Tech. Ensembles regularly offer students a musical outlet, and performances are scheduled either in the Panthereum on campus or the Gleason Performing Arts Center throughout the year.

In 2008, Catanese broke ground on the Ruth Funk Center for Textile Arts—the only textiles center of its kind in the state. In 2011, the former Brevard Art Museum merged with the university, giving the longtime community resource a new lease on life. With a \$1 million gift from the Foosaner Foundation and a fresh name, a new path for the Foosaner Art Museum was set.

Catanese knew from the beginning that funding the future of the only independent, technological institute in the Southeast would require careful coordination. Florida Tech's Golden Anniversary in 2008 provided the perfect platform to launch a \$50 million capital campaign.

"People told me at the time 'yeah, that'll never work. That's too much money. Between the economy and competition for scarce resources, you'll never make that."

Catanese's team set out to prove the naysayers wrong, rolling up their sleeves and canvassing the community and the country for support from those who would invest in the university's future. Officially concluded on Sept. 26, 2009, the Golden Anniversary Campaign for Florida Tech exceeded its goal and raised \$60 million.

Major gifts to the campaign opened new avenues of research and learning like a







Clockwise: Catanese, founder of the faculty band TWITCHY, demonstrates his percussion skills in the Panthereum. Launched in 2009, the Harris Institute for Assured Information represents a bold initiative in the cyber field. The Cataneses join Jeanne Farmer and board of trustees chairman Phil Farmer at Florida Tech's 50th Anniversary celebration gala.

\$5 million grant by the Harris Corporation Charitable Fund through the Community Foundation of Brevard to create the Harris Institute for Assured Information; a \$5 million gift designed to enhance business offerings and strengthen online education, given by Nathan M. Bisk, one of the nation's leaders in continuing education and online learning. A \$1.5 million endowment to create the Farmer Scholars Program, given by Phillip W. Farmer. Other gifts included funding to build facilities and create programs for the Emil Buehler Center for Aviation Training and Research, The Scott Center for Autism Treatment, the Ruth Funk Center for Textile Arts, and the Northrop Grumman Engineering and Science Student Design Showcase.

But that was just the beginning, as the Golden Anniversary Campaign proved great things could be accomplished. This April, the university will conclude only its second major fundraising initiative, the ambitious \$100 million Create The Future campaign. "We must remain focused on our future, and funding that future has always been one of my top priorities," Catanese said.

The university has expanded in key areas under Catanese's leadership, increasing the number of students served from approximately 3,600 in 2002 to more than 16,000 today. Revenues have risen from \$73 million to \$233 million. Athletics has grown to 22 varsity teams, including football and lacrosse.

"Florida Tech is unique in the history of American higher education," Catanese added. "And her opportunities are unique as well. Florida Tech has a big future ahead. Sara and I have been privileged to be a part of this outstanding success."

Catanese plans to continue as a member of the Florida Tech faculty following his June 30 retirement, serving as a university research professor. And of course, cheering "FIT!" at Florida Tech athletic events.

"Once a Panther, always a Panther,"
Catanese said. "It's going to be a lot of fun."
—Wes Sumner

2011

Panther Dining Hall opens.

Brevard Art Museum merges with university; \$1 million gift establishes it as Foosaner Art Museum.

Panther Aquatic Center completed.

2012



Florida Tech and NASA host International Space University Space Studies Program, first hosted 25 years earlier at MIT.

2013

Indian River Lagoon Research Institute (IRLRI) established to find solutions for the lagoon's growing problems.

Panthers win their inaugural football game, a 20-13 victory over Stetson University.

2014

Nathan Bisk College of Business expands to a new home, the 22,000square-foot Babcock Oaks office building on South Babcock Street.

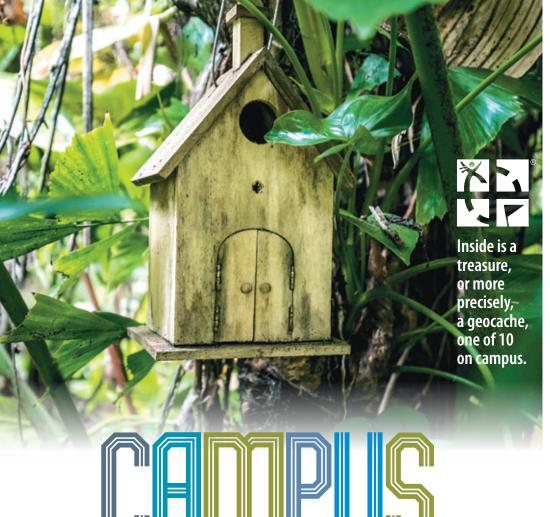
2015

\$1 million gift from Harris Corporation creates a new Student Design Center at the university, an 11,500-square-foot, single-story structure.

2016



University concludes \$100 million Create The Future capital campaign. President Catanese retires June 30.



Birdhouse Botanical Garden

Hidden off the beaten path, deep within the garden, this birdhouse hangs among the fronds and foliage.

A tour of the subtle, strange and sometimes unnoticed elements of campus.

Nestled deep within the Botanical Garden near a bend in the stream ... a serpentine palm bridge leads to a jungle peninsula where, among the fronds and foliage, the patient observer will find a wooden birdhouse.

Just up the path, under a small gazebo stands a wise, whittled tiki head. With his origins unknown, students and staff try to make him feel comfortable on campus by styling his locks of Spanish moss.

Leave the pavement and follow the mulch path to the east to discover an abandoned tree fort. All that remains are a few planks and a tattered rope swing. While this type of "free range construction" is discouraged today, Panthers of the '70s and '80s often collaborated on "jungle" hangouts.

These are campus curiosities—from little-noticed nuances to long-fabled lore, relics of bygone days and tokens of quirk and character. Take a trip down memory lane or discover something new and unexpected about campus:





Eye of the Dragon Keuper Building

During the 1970s and 1980s, Florida Tech was a leader in granting graduate fellowships to Chinese students. Taiwanese officials presented the Chao Tsu-Yu Chinese clock, which is covered in intricate embellishments, to the university as a gift in 1981.



Florida Tech's first research director David Woodbridge won national attention in 1970 when Time Magazine published an article describing his efforts to use radioactive cobalt-60 to purify water. The underground facility he used to conduct experiments lies beneath a small structure near the Crawford Building that resembles an outdoor restroom. We call it the Atomic Toilet.

East of Crawford Building

Tiki Head Botanical Garden

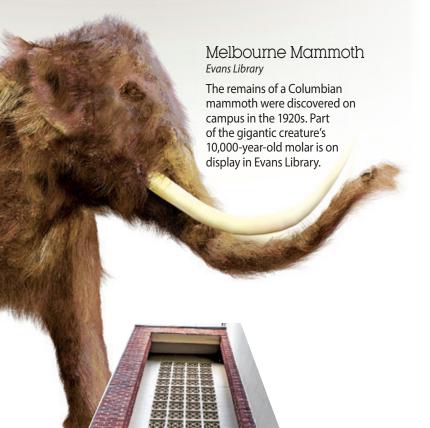
This wise old tiki head lives in the Botanical Garden. He's big and bald and appreciates when students sprinkle Spanish moss on his dome.



Two-Headed Palm

Botanical Garden

No, this tree wasn't struck by lightning or the subject of a covert biology experiment. It's just the natural growth pattern of the gingerbread palm. This specimen can be found near the parking lot behind the Denius Student Center.





Bas Relief Work Building

This artwork is one of two ornamental decorations that adorned the old University of Melbourne building. This relief depicts three individuals, representing different races, rising above the world. One holds a dove of peace, the second carries a pair of scales and a scroll, and the third bears a book.



Watcher in the Wood **Evans Library**

This happy little face just showed up one day and is now one more part of what makes Florida Tech a fun place to live and learn. Find him outside the library facing the covered bridge.



Door Without a Landing Residence Ouad

This door provides access to mechanical space under the stairs at Grissom. It is rarely used and is for service personnel only. Hence, no landing.



Old School House

Botanical Garden

Melbourne's oldest surviving schoolhouse was built in 1883 by John Goode at his house on the river and was moved to Florida Tech in 1970. Today, it rests in the Botanical Garden as a reminder of days past when students sat on benches, wrote on slates and drank from the well nearby.





Schulmerich Carillon

Evans Library

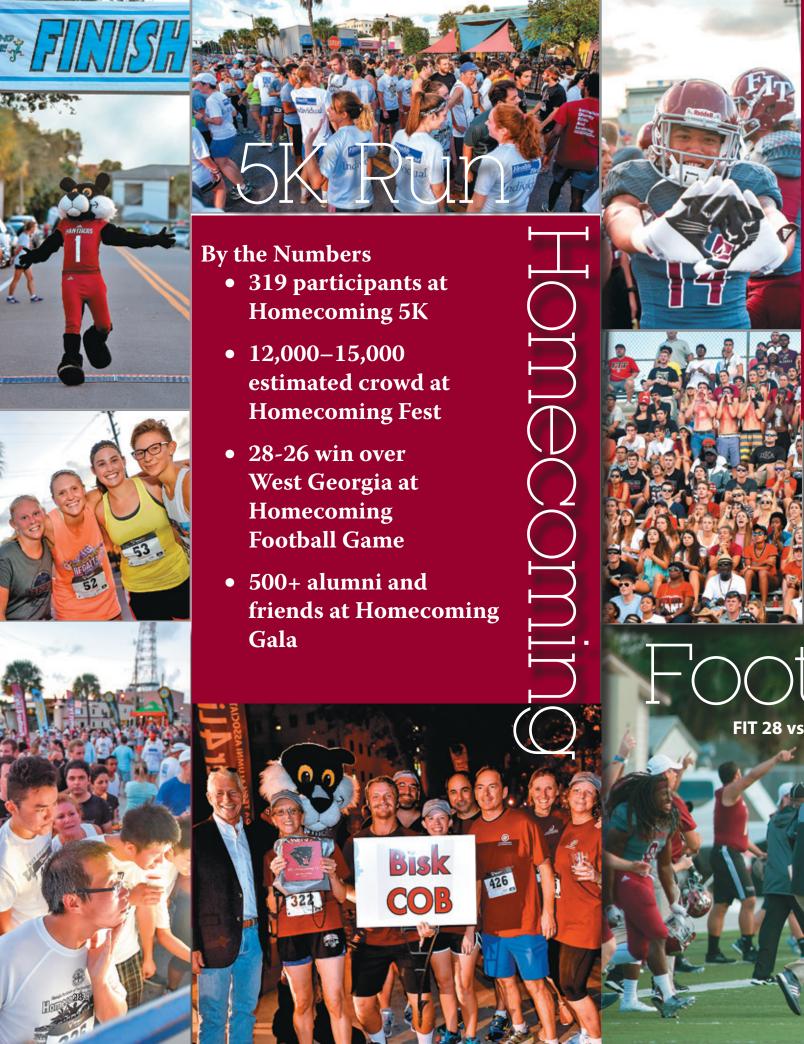
On floor 3.5 (or the landing between floors 3 and 4 of the Evans Library) sits an unusual instrument, a Schulmerich Coronation Carillon "Auto Bell" Roll player. In the early '00s, the device was programmed to play the alma mater at Panther Plaza.



Jerome P. Keuper's vision for campus included palm trees ... lots of them. He planted a row of royal palms all along Country Club Road but a hard freeze in the early '60s wiped them out ... except for one. The stoic specimen was transplanted and today can be found just east of the Old School House at the Dent Smith trailhead.









See other award winners on page 31.















Greg Donovan '91 College of Aeronautics – Skurla Award

Rick Rowe '11 MBA Nathan Bisk

College of Business 3

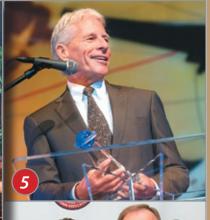
Rear Admiral Jonathan W. White '81 College of Engineering

Manny Rodriguez '04 M.S. College of Psychology and Liberal Arts

Duane De Freese '82 M.S., '88 Ph.D. College of Science

6 Julian Fields '84 **International Award**

Congratulations to all winners.









ALUMNI NEWS

FROM THE FTAA PRESIDENT

CHAD C. SHOULTZ '96

Dear Florida Tech Alumni, Students, Parents and Friends:

It is a great time to be a PANTHER! Over the past several years, I have witnessed firsthand the exciting evolution of our university—whether it was attending the homecoming weekend events, the newly established Alumni Concert Series, a sporting event or summer camp for my children, I am impressed by the level of excellence.



Hard work and determination raised our university to new heights again this year—*U.S. News & World Report* ranking, *Forbes* and *Bloomberg Businessweek* accolades, our football team upsetting #1 ranked, undefeated West Georgia on homecoming weekend, a successful Day of Giving and a newly opened Harris Student Design center. Those and many others were impressive!

Because of this, I am truly honored to be the next FTAA president. Duane De Freese and his predecessors created a strategic and exciting path. The dedication of Dr. Catanese, Dr. McCay, Bino Campanini, the entire Alumni Affairs staff and the devoted volunteers of the FTAA board will create even more opportunities for highlights for the coming year.

If you think about your time at FIT to where your university is now, you can't help but feel Panther Pride. The easiest way to experience this feeling is to visit. Whether it is to homecoming weekend, a sporting event, the Jungle (Botanical Garden), accompanying your son, daughter or grandchild as a potential student on their college visit, or visiting one of your favorite professors, now is the time.

If a visit is not in your future, take the time to follow us on the Florida Tech Alumni Association Facebook page. We are over 10,000 strong.

Committed to increasing the value of our degrees! #PantherPride

che sont

YOUR ALUMNI ASSOCIATION OFFICERS

Chad Shoultz '96 | President | Indialantic, FL | cshoultz@cfl.rr.com

Andy Kirbach '90 | Vice President | Melbourne, FL | akirbach@gmail.com

Rhodie Humbert '82 MBA | Secretary | Melbourne, FL | rhodiehumbert@aol.com

Brian Stahl '86, '88 M.S. | Treasurer | Satellite Beach, FL | brianmstahl@gmail.com

Kim Bozik '87 | Member-at-Large | Chandler, AZ | kim.b.bozik@intel.com

David Murphy '91, '01 M.S. | Member-at-Large | Winter Garden, FL | davemurphyrr@hotmail.com



Continue Your Florida Tech Education – 100% Online

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 indemand graduate disciplines:

Accounting

Business Administration

Cybersecurity

Database Administration

Enterprise Resource Planning

Finance

Healthcare Management

Information Technology

International Business

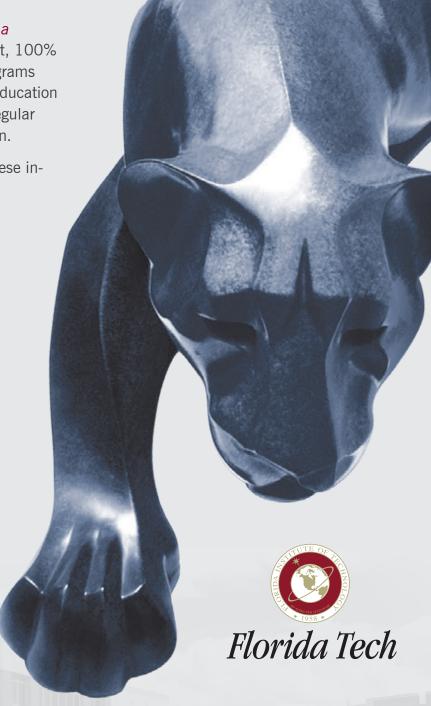
Internet Marketing

Management

Marketing

Project Management

Supply Chain Management



Call **888-987-9093** today to speak with an enrollment services representative or visit **FloridaTechOnline.com/Alumni** to learn more.







ALUMNOTES

1970s

YOUNG LEE '73 M.S. retired Dec. 31, 2015, from Central New Mexico Community College.

1980s

GREGORY P. LEE '80 Ph.D. is the new editor-in-chief for Archives of Clinical Neuropsychology. Lee is a professor of neurology at the Medical College of Georgia of Georgia Regents University where he is director of the Neuropsychology Service.



WARREN PRYOR '82 invited MICHELLE CURTIS '11 M.S. to the University of Saint Francis, Fort Wayne, Indiana, to give a seminar on her thesis, "Development and morphology of ciliary urns in the sea cucumber Synaptula hydriformis" to students and faculty. Curtis had the opportunity to meet with inquisitive students, faculty and staff and to sit in on Pryor's comparative anatomy class.



BARBARA ANDERSEN '85, captain A320 at United Airlines, flies with her husband on his last trip as a first officer before upgrading to captain.



DONNA CASSARIO '85 and alumni/sorority sisters show some Panther Pride as they have fun at the first tailgate of this football season. Alumni included are **DEVIN SWANSON** '90: MICHELLE PUJOL-MILLER '09 M.S.,'14 Psv.D.; MARK MILLER '86; STEPHAN MAMINAKIS '88,'93 M.S.; RICH ELLIOT '90,'97 M.S.; KIM CATTEY '88; BRIAN RIDYARD '88 AS,'89 B.S.,'94 MBA; **DIANA CLAAS '89: SUE BARON-ELLIOT** '90; JOSE MARIN '89; NANCIE **MATSON-MARIN** '88,'91 M.S.; KATHY CIANO-MAMINAKIS '91; STEPHANIE TITUS-YANCEY '90.

Submit your AlumNotes to alumni@fit.edu



CHARLES J. MITCHELL JR. '86 MBA, owner of First Capital Property Group Inc., was recognized as one of Orlando's 2015 Veterans of Influence.

1990s



MIKE ELLICOTT '93 and DOUG GARBINI '84 are together af Camp Arifjan Kuwait where they have linked up in support of Combined Joint Task Force—Operation Inherent Resolve. Garbini, right, is the senior civilian engineer with CJTF Engineering and a career employee of the Naval Surface

Warfare Center, Carderock Division and Ellicott, left, is the director of engineering, a career U.S. Army Colonel.



RICHARD SHARPE '94 and his family watched the Panthers on their UK tour this past summer. Sharpe is a Florida Tech Athletic Hall of Fame member and the NCAA career goals record holder.



RUPAL AMIN '99 and his wife Keta received an early Christmas present – the beautiful baby NAKSH RUPAL AMIN.

ON THE **ROAD**

San Francisco



Michelle Fillingim '97, Bino Campanini, Matthew Fillingim '95, '97



Girija Satyanarayan, Venkatesh Ramamoorthy '10, Mehdy Bohlool '11, Hanieh Karimi

Tampa



President Anthony J. Catanese, De'Von Richardson '14

2000

MATTHEW EGGERT '01, director of technology and innovation at The First Academy in Orlando, was handpicked to join the community of Apple Distinguished Educators, an award that honors innovative educators. Eggert is one of six educators chosen from the state of Florida.



DENNIS BRANDT '02, '06 M.S., and his wife Cybil took a vacation of a lifetime in Italy visiting Rome, Maranello, Lake Garda and Germany.



SCOTT SABETSKY '02, '04 M.S., and REBECCA (FARMER) SABETSKY '03 welcomed their son, Connor, in September 2015

CARLOS CHINFONG '03 and his wife Stephanie are expecting their first child.



JAMES R. CICARDO Jr. '04 and his wife Heather welcomed their first child, Thomas James on June 4 weighting 9 lbs., 6 oz. The family currently resides on Long Island, N.Y., and looks forward to raising a future Panther.



CHARISE PARKER '05 made the news in October with a heartwarming story of lost and found. After losing her wedding ring in the waves at an Indialantic beach, she recovered it thanks to the diligent efforts of a good Samaritan, Warren Dennison, and his metal detector. View the full story at: www.wesh. com/news/woman-reunited-with-lost-wedding-ring-in-indialantic-beach/36064196

Remembering FTAA Board Member Don Hooper

Our friend and colleague **DON HOOPER** '84 tragically passed away on Jan. 8, 2016, due to a motor vehicle accident.

Don was a very active student and alumnus. He participated in crew during his time at FIT and was a member of the Delta Delta Tau fraternity, where "Hoop" always showed his wonderful wit. He also met and married the love of his life, Lisa Zediker '86 M.S., and they had three beautiful children, Britney, Ashley (who attended FIT for some of her college career) and Eric.



Don served as an alumni board member for six years, driving better connections between the university, commercial industry and the highly talented graduates. For the more than 15 years, he was a keynote speaker from Intel at FIT Career Days and Tech Talks, where he described the ins and outs of the semiconductor industry to students, many of which were hired. He loved the personal interaction with the students and shared much of his knowledge gained over his 27-year Intel career as a senior technologist. He was also recently named the New Mexico Site Energy Conservation program manager and was looking forward to adding that role to his vast experience.

Along with his technical insight, charming personality and being a true innovator, Don will be remembered for his absolute love of flying—often relating tales of his weekend adventures with his airplane. He shared tales of his "\$100 hamburgers" that he would get by flying to other cities for lunch on Saturdays and Sundays and looked forward to his annual trip to Oshkosh, Wisconsin, every year for AirVenture. Don was an avid woodworker, had an incredible sense of adventure and a deep passion for travel, recently traveling to India and Vietnam.

Don was a great man and touched the lives of many, many people during his life. His quick humor, care for people, love of problem solving and love of life will be greatly missed.

—Kim Bozik '87 Florida Tech Alumni Board Member

ZEESHAN-UL-HASSAN USMANI '06 M.S., '09 Ph.D.,

recently published his first English novel, Curiosity, available on Amazon.com.

JOHN FINN '07 and DAWN SIERER FINN '06 welcomed their daughter, Keelyn, in February 2015. Swim coach MORGAN TWEEDIE WOODARD '07 rallies her team to set new Viera High School swim team records. At Cape Coast Conference Swim and Dive competition, the girls ranked #2 and the boys ranked #4 of the Brevard County high school teams.

TREVOR SECK '08, '10 M.S., welcomed a baby girl this past year.

Continued on page 36



Randall Thompson '11, Cory Bernstine '11, Kelli Ragan '10, Bino Campanini

Houston



President Anthony J. Catanese, Onyema Ndukwe '92



Patrick Swanick '04, Cameron Swanick, Cybil Brandt, Dennis Brandt '06

ALUMNOTES

FIN BONSET '96, '99 M.S., is the National Aviation Planning Leader (Sector Manager) for Atkins North America and an adjunct professor in Florida Tech's College of Aeronautics. He organized a workshop in Brazil for the United States Trade & Development Agency (USTDA) and its Brazil—U.S. Aviation Partnership Initiative where he also provided subject matter expertise on airport design. To his



pleasant surprise, fellow Panther **KENT DUFFY** '97 was also invited to speak. The duo co-hosted several sessions and represented Florida Tech well! Bonset, right, lives in Melbourne with his wife and two Boxer dogs. Duffy, left, is the FAA's senior airport planner and runs the country's aviation planning NextGen initiatives for capacity and air traffic control enhancement.

Continued from page 35



STEVEN TUCKER '08, '13 M.S., and wife Christy are proud of their future Panthers Jacob Lewis, Alexander Lansing and, newest member, baby Samuel Edward in August 2015.

AMANDA COBURN '09 and DAVID FERRIS '09 were married in April 2014 and welcomed a baby boy in July 2015.

National Geographic's new series, "Breakthrough," featured Lockheed Martin's Orlando-based Exoskeleton Technologies Program Manager TRISH AELKER '13 MBA in the episode, "More Than Human." The episode is directed by actor Paul Giamatti and produced by Ron Howard's and Brian Grazer's Imagine Entertainment.

Lockheed Martin's FORTIS, an unpowered industrial exoskeleton that allows users to hold heavy tools waist high or above for long periods of time with no fatigue, was demonstrated in a first responder situation during the episode.

View it at: http://channel. nationalgeographic.com/ breakthrough-series/ episodes/more-than-human

2010s

SEAN MAULDIN '10 MBA and ALLISON (VOLLMER) MAULDIN '10 MBA welcomed a baby boy in August 2015.



JONATHAN KUCHARYSON '11 smiles with his adorable 6-month-old Panther cub, Laila Kucharyson. He currently resides in Michigan and is pursuing his Ph.D. in chemical engineering at the University of Michigan.

After 21 years of honorable service, **KEVIN SANTOS** '11 retired from the U.S. Army. His service included tours to Iraq and Afghanistan, and he completed much of his degree while either deployed to a combat zone or overseas. He was able to walk for his graduation from FIT and his parents flew in from Puerto Rico to see the first person in their immediate family graduate from college. Today he is a new veteran starting his own business in logistics, focusing on transport of dangerous and hazardous goods throughout the world.

Bjørnar K. Hermansen, trustee and long-time university supporter, passed away Dec. 30, 2015.

An accomplished businessman and philanthropist originally from Norway, Hermansen was a valued member of the Florida Tech board of trustees since 1989, noted for his advocacy of the university's commitment to global education, said President Anthony J. Catanese.

As a businessman, he helped transform Port Canaveral and the cruise industry in addition to successful ventures in banking, real estate and hotels, among others. He was also known for his generosity and volunteerism, supporting Junior Achievement of the Space Coast, the Brevard Zoo, the Brevard Symphony Orchestra and other causes. At Florida



Tech, the Hermansens established the Paul Andre Hermansen Memorial Scholarship. He is survived by his wife of 50 years Bjørg, two sons and their families.

In Memoriam

GEORGE ABDO, professor emeritus, passed away Oct. 15, 2015. He served as a professor of mathematics at Florida Tech from the 1960s through 2000.

SARA LYNN BANKS '82 Psy.D., of Indialantic, passed away Nov. 15, 2015. She worked in the community as a licensed psychologist for over 30 years.

NICHOLAS A. EVANS '70 M.S., of Melbourne, passed away Jan. 7, 2016 at the age of 95.

LARRY HENCH, university professor of biomedical engineering, passed away Dec. 16, 2015. Hench joined Florida Tech in 2013. He was a National Academy of Engineering member and the inventor of Bioglass, the first synthetic material to bond to living tissues.

ALICE E. LINEHAN, former graphic artist and manager of printing operations at the university, passed away Jan. 9, 2016.

DONALD L. MORIN '71, of Indian Harbour Beach, passed away 0ct. 21, 2015.

ROBERT (BOB) RICHMOND passed away Dec. 7, 2015. He served Florida Tech for many years as the director of teacher education in the department of science education.

DONALD J. STEPNICKA '78 passed away Aug. 22, 2015, in his home surrounded by his family following a fight with cancer. He worked for Boeing for many years with the space program. He was a proud member of the Apollo program and helped launch man to the moon.



ERNESTO KRANWINKEL '12 is a marketing coordinator with Altadis USA in Fort Lauderdale. Previously he played professional soccer with Delfines del Este FC in the league of the Dominican Republic, where he was captain of the team and started in nine of 13 games and scored one goal.



CHRIS CARTER '15 was awarded the Eurobasket.com Player of the Week award for an impressive game in round 5. From the guard position, he orchestrated the victory with a game-high 26 points, six rebounds, five steals and eight assists for his team, Bipa Basket (Ukraine) over Cherkasy (Ukraine) 80-72.





Casey Turner:

Engineer, Entrepreneur, Entertainer

Starting out as a rocket scientist by day and punk rocker by night, Casey Turner '94 shuffled his mix and found stress-free success on his own terms. He moved to Southern California, picked up a ukulele and made music his full-time gig, while still making time for left-brain leisure.

"After graduating from Florida Tech with a B.S. in mechanical engineering, I put my education to use at Kennedy Space Center working on propulsion systems for NASA. I later moved to Southern California and found my way into the hydrogen fuel cell industry where I facilitated development for some of the first hydrogen fuel cell/hybrid electric vehicles for Ford, Daimler Chrysler and Nissan. The company eventually disintegrated leaving a golden opportunity for a less stressful way of life—island beach rock and reggae.

I had formed a punk rock band in college and had continued performing and touring with the group in my spare time. Moving to San Diego inspired a change in musical direction and a more mellow vibe—strumming up

the ukulele and guitar with a loop station. Music became my full-time career change upon the release of my first album, appropriately titled "No Stress Express," which hit the radio in Australia, New Zealand, Hawaii, Florida and California. I now tour nationally and internationally and even opened for Matt and Kim during Florida Tech's Homecoming Fest in Downtown Melbourne in November.

As a musician, I still draw on my Florida Tech education in many ways, including the audio system design and configuration of my fairly complex live setup. I also recently started a small engineering company that focuses on creating devices and apparatuses to help disabled people.



EGREES:

'94 B.S. Mechanical Engineering

HOBBY: Surfing

CURRENT CITY: San Diego, CA

NOTABLE ACHIEVEMENT:

Influencing people through positivity

BEST PART ABOUT BEING AN FIT ALUMNUS: Being able to call it home and being greeted with smiles and open arms from new friends and former ones.

CONNECT:

Check out Casey's music at www.CaseyTurnerMusic.com or find him on social media.

Bino Campanini '90, '92 MBA

Vice President for Alumni Relations and Executive Director, Alumni Association

ANOTHER STELLAR YEAR FOR ALUMNI

2015 was another stellar year for alumni relations at Florida Tech. Our core events once again continued to develop and grow, and we added new initiatives that were a resounding success. Homecoming was huge once again with indie darlings Matt and Kim bringing their high energy show to FIT Homecoming Fest and the football team defeated the #1 team in the nation. Although there is too much to report in one column, here are some of the recent highlights.

The FTAA hosted a book signing on campus for General Ann Dunwoody (ret.). Over 200 people attended the event at which alumna Dunwoody talked about her book A Higher Standard. General Dunwoody related the leadership lessons of her military career in an inspirational and well received speech and remained for over an hour afterward signing copies of her book.



Thanks to alumnus and trustee, Tom Folliard, for getting the Florida Tech Panthers on the jumbotron at Gillette Stadium before a New England Patriots game. Folliard, CEO of Carmax, Inc., is a huge Patriots fan and was hosting a group of basketball alumni at the game.

The FTAA kicked off the Alumni Concert series with two concerts ZOSO (Led Zeppelin tribute band) and Matisyahu. The goal is to provide local alumni an opportunity to gather with fellow alumni and enjoy a show. The FTAA plans to host concerts on campus but is also working with the Maxwell King Center. Next up is Jay Leno on Feb. 21.

Finally, I want to extend a huge thank you to outgoing FTAA president, Duane De Freese. Duane served two years as president and oversaw a major transition of the FTAA board. His dedication and leadership were integral in the success and growth of so many of the initiatives I have been recording in this column the past two years. He leaves the FTAA in a strong financial position and with new and diverse programs that will help the FTAA continue to develop and grow.







MISSION ACCOMPLISHED—DAY OF GIVING SUCCESS! Alumni from all over the world helped make the inaugural Florida Tech Day of Giving (FTDOG) a huge success. With a goal of alumni participation and helping increase our % of undergraduate alumni who give back to their alma mater (a metric used by U.S. News & World Report in its ranking formula), the FTDOG exceeded all expectations. The initial goal was 500 donors and by the end of the 24-hour campaign we reached 1,499. The driving force for this campaign was #participationmatters with an emphasis that no gift was too small. This message truly resonated with our younger alumni who gave in the largest numbers. The competition between the colleges really helped spur the response from alumni, and I have to give a shout out to Dean Oyman and the College of Aero alumni for getting the most donors. Our U.S. News & World Report ranking reflects on all of us and should be a source of pride for all alumni. My hope is that next year all our alumni, and especially those of you who enjoy reading Florida Tech Today, will join us on Nov. 29 and participate in our second annual Day of Giving.

REAL WORLD CONFERENCE

The first annual REAL WORLD conference attracted 100+ students who took the opportunity to experience a conference event with break-out seminars on various topics pertaining to life after college. The conference also afforded the students an opportunity to meet with business leaders at a cocktail reception and dinner. For all those who completed the two-day conference: a guaranteed interview with a major corporation like Intel, Harris and EA Sports!



We'll be flying high when we drop 2,000 numbered balls from a helicopter. The closest ball to the pin wins \$50,000! 2nd closest to pin wins \$10,000, and 15 lucky people win \$1,000 each!



www.chopperdropper.com

Each ticket allows ONE PERSON to enjoy food and beverages at the Sporting Affair Cocktail Reception!

Friday, March 11, 2016 - 5:30 p.m. (ball drop 6:30 p.m.) - Suntree Country Club Dr., Melbourne, Fl. 32940) Winners will be announced immediately following the Chopper Dropper reception.

Need not be present to win. A Florida Tech representative will contact winners in not present. All proceeds benefit Panther Athletic Scholarships.

Suggested donotion: no purchase or donotion necessary - Fair market value \$20



Did you know ... In the early 1990s, the College Players reflected on Florida Institute of Technology: Then and Now with this homecoming parade float.

Do you remember this float? Are you pictured here?

Tell us about it at fltechtoday@fit.edu

