

Florida Tech TODAY

A magazine for Alumni and Friends of Florida Institute of Technology

FALL 2009

Cover Story

ALUMNI DRIVING SUSTAINABILITY



In This Issue: *Reaching for Sustainability | Research, Innovation on Multiple Fronts | Lighten Up on Lighting | Homecoming '09*

President's Perspective

Dear Florida Tech Alumni and Friends,



Welcome to the Fall 2009 edition of *Florida Tech TODAY*. We hope that you enjoy this update on all things Florida Tech!

In this issue, in addition to our normal installment of campus and alumni news, we explore topics concerning environmental awareness, energy conservation and other items you might consider eco-related. Our primary goal in assembling these stories is to showcase the innovative work being done by our students, faculty and alumni in these critical areas. They all have important information to share—information that warrants careful reflection.

Meanwhile, *Florida Tech TODAY* is renewing its commitment to environmental awareness and inviting you to enjoy future editions online, rather than hard copy (see back cover). We want to avail ourselves of any opportunity to “reduce, reuse and recycle.”

The revered poet Lord Tennyson is credited with the sentiment “Knowledge comes, but wisdom lingers.” As we gather the knowledge that helps us better understand our complex world, we look forward to the wisdom that it will hopefully engender in all of us. It all begins with education.

Have a great fall!

Sincerely yours,

A.J. Catanese, Ph.D., FAICP
President



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PRESIDENT Anthony James Catanese, Ph.D., FAICP
SR. VICE PRESIDENT FOR ADVANCEMENT Kenneth P. Stackpole, Ph.D.

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MANAGING EDITOR/DESIGNER Judi Tintera, jtintera@fit.edu
EDITOR Wes Sumner, wsummer@fit.edu
ASSISTANT EDITOR Karen Rhine, krhine@fit.edu
COPY EDITOR Christena Callahan, ccallaha@fit.edu
CLASS NOTES REPORTER Verna Layman, vlayman@fit.edu
CONTRIBUTING WRITERS Joan Bixby, Christena Callahan, Diane Deaton, Karen Rhine, Wes Sumner, Rebecca Vick
PRODUCTION Rob Gribbroek, Kristie Kwong
WEB LAYOUT Christena Callahan
CIRCULATION Julia Murray
PHOTOGRAPHY Ken Droscher, Florida Tech Athletic Communications staff, Rob Ghiotto, Anthony James, Verna Layman, John Johnston, Dave Potter for *Spaces* magazine, Wes Sumner, Judi Tintera

ALUMNI OFFICE

ASSOCIATE VICE PRESIDENT FOR ADVANCEMENT AND EXECUTIVE DIRECTOR, ALUMNI ASSOCIATION Ken Droscher (321) 674-7191, gopanthers@fit.edu
DIRECTOR OF MEMBERSHIP, MARKETING AND PROGRAMS AND ASSOCIATE DIRECTOR, ALUMNI ASSOCIATION Diane Deaton (321) 674-7198, ddeaton@fit.edu
ASSISTANT ALUMNI DIRECTOR Marjorie Beckett '98 (321) 674-7642, mbeckett@fit.edu
ADMINISTRATIVE CLERK Hazel Rosskamp (321) 674-7190, hrosskam@fit.edu

HOW TO KEEP IN TOUCH

Florida Tech, Office of University Communications, 150 W. University Blvd., Melbourne, FL 32901-6975 (321) 674-6218, Fax (321) 674-6399, fltechtoday@fit.edu
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Jennifer Neuhard, Director of University Marketing, (321) 674-8935, jneuhard@fit.edu



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On the cover: Mark Rauscher '96, assistant environmental director for the Surfrider Foundation, stands on Trestles Beach at San Onofre State Park, just outside of San Clemente, Calif. The grassroots activism of the Surfrider Foundation was instrumental in protecting the area from the environmentally devastating construction of a toll road through the state park. Rauscher's shirt reads "Save Trestles."

Inset, top: Workers prepare the ductwork at the new Scott Center for Autism Treatment. Inset, bottom: Rich Aronson photographs a penguin while conducting research in Antarctica.

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Alumni Association

Russ Ballagh '74, President, Venice, FL
(941) 493-1303; russ.ballagh@verizon.net

Alan Prestwood '73, '80, Vice President,
West Melbourne, FL (321) 953-1541;
alan.prestwood@wachoviasec.com

Mike Gordon '94, '00, Treasurer, Palm Bay, FL
(321) 951-3826; m_gordon@bellsouth.net

John Valente '76, Secretary,
Hampstead, NC (910) 270-8709;
jffunding76@yahoo.com

Old Buddies Reunited

A little work and a lot of luck goes a long way.

I was helping the university track down alumni for homecoming, concentrating on those grads who had earned graduate degrees and attained General Officer status in the military or Senior Executive Service (SES) status in the Civil Service. One of the SES grads I was trying to locate was **Joe Bolos** M.S. '72, a former fellow employee at the Kennedy Space Center. Through some dedicated detective work, I was finally successful in locating Joe in Gainesville, Va. This sparked a memory that **Jack O'Brien**, a former adjunct professor at FIT and Chief Counsel at KSC also had a Gainesville address. I also remembered that Joe, like myself, was a former student of Jack's at FIT, as well as a former fellow employee at KSC. I notified Joe who in turn contacted his newfound neighbors, the O'Briens, which resulted in the two families and former Brevard County friends getting together and renewing a long friendship. Just wanted to share this happy tale to illustrate how hard work often pays off in strange ways.

Hugh "Hamp" Wilson '74 M.S.

Apollo 11 Memories

George Sirbola '62 M.S. contributed his reminiscences to an Apollo 11 "First Man on the Moon" 40th anniversary project of Florida Tech's Office of University Relations. He responded to Karen Rhine, assistant editor of Florida Tech TODAY with thanks for being included. Also contributing to the site at <http://apollo.fit.edu> were Ken Clark '66, Mel Pearlman '69 and Carl Bromer '70.

Hi Karen:

I looked at the site, and today received the copy you sent and the card. THANKS. It is such a pleasure to be reminded that a school I was associated with has come so far. It is also a pleasure knowing FIT employees such as yourself are carrying on the traditions we tried to instill in all the students. In those first years, I had the honor of publishing "The Scope," the first student paper of BEC, and I was elected president of the first student union. We had a hard time getting students to participate in events like the one you just completed. So I would like to say thank you for having put together the Moonlanding Issue and for allowing me to be a part of it.

Thanks Again,

George Sirbola '62 M.S.

P.S. Two interesting bits of info: I found a letter in my files asking me to redeem a BEC bond sold when I was a student to help keep BEC afloat. Second, my boss at IBM during Apollo 11 revealed a secret to me that he had pressed his fingerprint on one of the landing pads of the Apollo 11 Lunar Lander. He told me this after I suggested to him that our DNA probably was aboard every Saturn Vehicle ever launched. Interesting info after all these years.

We'd love to hear from you.

Tell us what you'd like to see and give us your responses to the articles you've read in the magazine. Send your comments to fltechtoday@fit.edu.

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Only Textiles Center in Florida Opens Doors

The Ruth Funk Center for Textile Arts at Florida Tech opened its doors to the public Aug. 29 to a brilliant display of colorful coats. The facility is the only textiles center in the state of Florida.

“The center is dedicated to furthering the understanding of cultural and creative achievements in the textile and fine arts,” said co-curator **Carla Funk** (no relation). “Our mission is to preserve, maintain, display and interpret an international collection of textiles through public exhibitions and educational programs.” **Thea Rusch** is also co-curator.

The opening exhibit, *Coat Couture: Inspiration to Creation*, features the contemporary creations of the center’s benefactor, **Ruth E. Funk**, and a selection of traditional textiles from the permanent collection. A Florida Tech trustee, Funk is a former art educator, life-long artist, collector and author.

Coat Couture positions Ruth Funk’s wearable art in the context of global textile arts. African mud cloth, Chinese embroidery, Panamanian molas and Asian ikats are featured as the inspiration for her contemporary wearable art designs.

Future exhibits will highlight international costume, new works by emerging fiber artists and the cultural importance of the world’s textiles.

Designed by Holeman Suman Architects, the Ruth Funk Center for Textile Arts is a two-story building with 3,000 square feet of exhibit space.

Coat Couture will be on view through Dec. 12. Hours are Tuesday through Saturday, 10 a.m. to 4 p.m. Admission is free.

For more information, visit <http://textiles.fit.edu>.

See gallery ad on page 7 of this issue.



At press time, the Ruth Funk Center for Textile Arts at Florida Tech was awaiting finishing touches.



Panthers Pack Campus for Fall Semester

Panther Prep Leader Brian Bomser, a sophomore, checks in students at orientation and move-in day activities Aug. 11 in the Clemente Center. Seven hundred freshmen and transfer students moved in that day, with upperclassmen moving in the next weekend, filling the Melbourne campus’ 1,350 beds to capacity.

\$465,000 Grant Benefits High Energy Physics Research



Marc Baarmand

Marc Baarmand, professor of physics and space sciences, received a \$465,000 grant from the U.S.

Department of Energy (DOE) for his research in elementary particle physics that inquires into the origin of mass. The funding is in addition to more than \$1.1 million that the DOE has previously awarded Baarmand for his work on the Compact Muon Solenoid (CMS) project, which is located at the European Center for Particle Physics (CERN) in Geneva, Switzerland.

After more than a decade of construction and commissioning, the CMS experiment will start processing data later this fall when the Large Hadron Collider, a proton accelerator, starts its operation producing proton-proton collisions at the highest ever energies. Baarmand, research scientist **Igor Vodopiyarov** and graduate students **Hamit Mermerkaya** and **Mike Ralich** are preparing for data analysis.

The CMS experiment, an array of large particle detectors, is the size of a five-story building. The experiment will record data on proton collisions, which will occur every 25 nanoseconds in the Large Hadron Collider accelerator tunnel 300 feet beneath the earth.

Aerospace Engineer Earns Prestige-plus

Daniel Kirk, associate professor of mechanical and aerospace engineering, was one of just nine engineering professors selected for the Boeing Co.'s Welliver Faculty Fellowship Program.

With the honor, Kirk participated in a Boeing eight-week summer program, which offered career-enhancing experiences in key research and technology programs. Other selected Fellows came from such universities as Villanova, Drexel, Baylor and Cranfield University in England.



Daniel Kirk

The program was named for the late A.D. "Bert" Welliver, a Boeing senior vice president known in the aerospace industry for his vision and leadership.

Enjoying a very successful spring, Kirk also was awarded a grant of just under \$300,000 by the Office of Naval Research (ONR). The grant funds his research on JP-8 fuels, the battlefield fuel of choice for the Department of Defense. The fuels power military aircraft and other high performance vehicles and equipment, including tanks, power generators and space heaters.

The goal of the work, conducted with Mainstream Engineering Corp. in Rockledge, Fla., is to improve combustion efficiency and support ground-based generators for the Marine Corps.

Sustainability Forum #7 is in the Works

The seventh Sustainability Forum, a joint effort of Florida Tech and Budapest University of Technology and Economics, is set for June 10–11, 2010, in Berlin. As in the past, the conference will draw experts worldwide, providing business, science and socio-political viewpoints on sustainability.

"Because the topic will be 'Culture and Sustainability,' we will focus on integrating different cultural approaches into sustainability," said College of Science Dean **Gordon Nelson**, a founder of the

Green Ribbon Honors Women and Then Some

Florida Tech has, for several years every spring, honored women with the **Joan Bixby** Award. The award recognizes students, staff and faculty members who enhance the climate for women's participation and development on campus. It is named for alumna, 1960s development director and friend of the university, Bixby.

In 2009 a man was honored for the first time—**Ken Droscher**, associate vice president for advancement and executive director of the alumni association. Also a first at the event was the partnership between Florida Tech and the National Women's History Month Project and the Green Ribbon Award. In 2009 the intent was to honor a member of the community who was among "women taking the lead to save our planet."

The "Green Ribbon" went to Cari Curri of the Kaliasan Med Spa and Wellness Center in Melbourne. She and her organization's efforts led to LEED certification for their facility, the official verification of the U.S. Green Building Council. The spa is also known for its use of Earth-friendly products.

Highlighting the awards event was keynote speaker Diana Dobin, executive vice president of Valley Forge Textiles, LLC, a decorative fabric supplier to the international hospitality industry. The award-winning company's FRESH (Fabrics Redefining Environmental Standards (for) Hospitality) products are made of 100 percent recycled and recyclable content. Valley Forge took a Sustainable Florida Best Practice Award in 2008.

partnership with the Hungarian University. Nelson and several other faculty members will make presentations at the conference.

Sustainability is the ability to maintain balance of a certain process or state in a system. It is a term used most frequently in connection with biological and human systems and may also be defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs.



Falcons faculty adviser Steve Cusick is second from left. Flight team, from left: Greg Fratantaro, Conner Shea, Nick Blouin, Tony Ferendo, David Callender, Tim Wing, Will Rae, Andy Greco, Matt Wentz and Chris Egan.

Falcons Win National Safety Award—Again

The Florida Tech student flight team, the Falcons, won the American Airlines Safety Award at the 2009 National Intercollegiate Flying Association's (NIFA) Safety and Flight Evaluation Conference (SAFECON). The conference was hosted in May by Parks College of St. Louis University.

The award is given annually by NIFA to the flight team that demonstrates the safest practices during SAFECON and at the team's home base during the past academic year.

Winston Scott, dean of the College of Aeronautics said, "We are so proud of the Falcons and pleased with our outstanding safety program. This award is truly a significant accomplishment in that the Falcons have won this national award three of the past four years."

This year's NIFA competition involved 28 of the leading collegiate aviation programs and 335 pilots. The pilots flew into St. Louis from across the country to participate in this event.

For more information about the College of Aeronautics, visit <http://coa.fit.edu>.


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RUTH FUNK CENTER FOR TEXTILE ARTS

Honor Society Debuts on Campus

In May, Florida Tech held its charter installation and initiation ceremonies for Phi Kappa Phi, the nation's oldest honor society.

"We are honored and excited to have Phi Kappa Phi on campus and to begin this tradition of recognizing academic excellence at Florida Tech," said **Randall Alford**, associate provost for graduate and international programs.

Alford was installed as chapter president at the ceremonies. Also installed were **Mary Bonhomme**, associate provost for online learning, vice president; **Deborah Marino**, nurse practitioner, secretary; **John Trefry**, professor of oceanography, treasurer; and **Robert Taylor**, head of the department of humanities and communication, public relations officer.

Additionally, eight faculty and staff members and 194 students were initiated.

Since its founding in 1897, Phi Kappa Phi has initiated more than one million members into its ranks, which comprise the best and brightest professionals and scholars from all academic disciplines.



Newly initiated faculty and staff members are, from left: Nathan Miller, Ray Bonhomme, Mary Helen McCay, Steven Lazarus, Charlotte Young, Mary Beth Kenkel, Richard Tankersley and Kurt Winkelmann.

Headquartered in Baton Rouge, La., Phi Kappa Phi is the nation's most selective all-discipline honor society. Its mission is "to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others."

Ford Named Director of Harris Institute for Assured Information

Richard Ford has been named director of the new Harris Institute for Assured Information. The Harris Institute, made possible by a \$5 million gift from Harris Corp. last year, focuses on developing advanced solutions to help solve the global information security problem.

"Dr. Ford has the credentials and experience to lead the new Harris Institute to prominence," said Florida Tech President **Anthony J. Catanese**. "We look forward to the contributions that Dr. Ford and the Institute will make in this important area of study."

The Harris Institute will ultimately be housed in a new 29,000-square-foot Harris Center for Science and Engineering now under construction on the Melbourne campus. Unlike other information research efforts that target classified government applications, the new institute's mission is to develop solutions for a wide range of real-world commercial and government applications. These include banking and finance, retail, health care, education, civil agencies and others.

"My vision for the institute is to create a national center of excellence in cyber security here in Melbourne, leveraging the high-tech partners we have both locally and nationally," Ford said. "We will strive to become the local center for ongoing workforce development in information assurance, and a thought leader in looking at the problems that users, companies and governments face with respect to using and storing information safely."

Ford, at Florida Tech since 2003, graduated from the University of Oxford in 1992 with a doctorate in quantum physics. Since that time, he has worked extensively in the area of computer security and malicious mobile code prevention. Previous projects include work on the Computer Virus Immune System at IBM Research and development of the world's largest Web hosting system while he was director of engineering for Verio. Ford was previously director of the university's Center for Security Science, and is a full professor in the department of computer sciences. His research interests include biologically inspired security solutions, behavioral worm prevention, security metrics and computer forensics.



Richard Ford

Human Factors Expert Joins Faculty

Guy Boy has been named a university professor in the College of Aeronautics. He also continues his appointment at the Florida Institute for Human and Machine Cognition (IHMC) in Pensacola where he is a senior research scientist. Meanwhile, he's a permanent member of the French Air and Space Academy.

"We are indeed fortunate to be joined by Dr. Boy who brings with him an extensive roster of prestigious credentials in the area of critical systems safety," said Florida Tech Provost **T. Dwayne McCay**.

At the university, Boy will teach undergraduate and graduate courses in cognitive engineering and human-centered design, and will develop the College of Aeronautics' first doctoral program focused on human factors in safety critical systems. He will also be advancing research opportunities for the college and beyond.

Boy's research focuses on cognitive engineering, usability, human-centered automation and design, safety-critical systems, operational documentation and knowledge management. He is author of four major books, more than 200 scientific and technical papers and is a member of several journal editorial boards. He is currently chair of the International Ergonomics Association Technical Committee for

Aerospace Human Factors and Ergonomics Worldwide. He is a founder of the International Conference on Human-Computer Interaction in Aeronautics.

He was executive vice-chair of the Association for Computing Machinery special interest group on computer-human interaction from 1995 to 1999.

Boy was president and CEO of the European Institute of Cognitive Sciences and Engineering, 1992–2008, an organization he founded, and was co-founder in 2004 of the cognitive engineering program at the University of Bordeaux, the École Nationale Supérieure de Cognitique. He was a European Space Agency expert for the definition of the overall human-machine interaction and artificial intelligence research program and has been a legal expert for aircraft accident investigations. From 1989 to 1991, Boy was the leader of NASA's Advanced Interaction Media Group. He was a research scientist at the Office National d'Études et Recherches Aéronautiques (The French Aerospace Lab) from 1977 to 1988.

Recipient of numerous awards, in 1991 Boy earned the French Institute of Management Start-Up Award for the development of Dialaxis. The organization developed intelligent assistant systems for space and automotive applications.



Guy Boy



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Nathan M. Bisk

\$5 Million Bisk Gift Enhances Business Programs, Strengthens Online Learning

Nathan M. Bisk, one of the nation's leaders in continuing education and online learning, presented the university with a \$5 million gift on Aug. 27. The gift is designed to enhance business offerings and strengthen online education. In appreciation, Florida Tech President **Anthony J. Catanese** announced that the university would rename its College of Business the Nathan M. Bisk College of Business.

"Mr. Bisk's generosity comes at an extremely opportune time for Florida Tech," said Catanese. "As we conclude our \$50 million Golden Anniversary capital campaign next month, we are looking for new and innovative ways to offer nationally respected business and online learning opportunities. We are deeply thankful for this important gift."

"I am pleased to support Florida Tech and add my name to its outstanding business program," Bisk said. "The university's commitment to a quality educational experience that better prepares students to compete in an ever-changing workplace is very much in keeping with my philosophy of learning. It is my intent to help make the Nathan M. Bisk College of Business one of the nation's premier business colleges, as well as one of the largest."

The \$5 million gift will be used to support the College of Business in three primary ways: 1) establishment of an endowed Chair of Business to be named the Max, Edith and Robert Bisk Distinguished Chair of Business; 2) marketing and

branding of the college; and 3) growth of the online business programs.

"Mr. Bisk is well-known as a visionary in continuing education and online learning," said **T. Dwayne McCay**, Florida Tech provost and executive vice president. "His generous support will help provide new resources for our faculty as they continue to deliver outstanding programs."

While most often associated during its 50-year history with excellence in engineering and science programs, Florida Tech is gaining new attention for its business curriculum. Since the online undergraduate degree and MBA degree programs launched in early 2008, enrollment in these business programs has grown to approximately 4,000 students today.

This online increase is in step with the fact that more and more adults are considering online undergraduate and more specialized business master's degrees, according to a recent report by the academic research firm, Eduventures. Also, because most adults are full-time employees, online degree programs have become more popular than ever.

"We're excited that we've expanded our business offerings online to meet the changing needs of students," said College of Business Dean **Robert Niebuhr**. "With this additional support from Mr. Bisk, we have every expectation that this growth is only the beginning."

Couple's Bequest Endows Astronomy and Astrophysics Programs

After remembering family members in their will, James and Sara Ortega left the balance of their estate, valued at approximately \$2.5 million, to Florida Institute of Technology. Ortega, who died in October 2008, outlived his wife Sara by just one week.

Ortega was already well known to the university. In 2004 he donated \$150,000 to augment funding for what today is the Ortega 0.8-meter reflecting telescope, the largest research telescope in Florida.

In June 2009 the university received more than \$600,000 of the bequest to initiate the Ortega Endowment for Astronomy and Astrophysics. The endowment will fund scholarships, fellowships and research opportunities for the department of physics and space sciences.

"This gives the department a giant boost," said **Kenneth Stackpole**, senior vice president for advancement. "Dr. Ortega's gift is a great example of how someone can leave an estate to a good cause while also taking care of family members."

Terry Oswalt, head of the department of physics and space sciences, spent a great deal of time with Ortega in recent years. He said, "Although he was a professor at the University of Virginia for many

years, Dr. Ortega felt his gift would have a much greater impact on Florida Tech. The legacy will benefit students and faculty here for generations to come."

The Ortega estate includes bank accounts, mutual funds, a condominium and other real estate as well as his books, which he donated to Florida Tech's Evans Library. The condominium in Melbourne Beach, where Ortega lived, will be used by visiting professors.



Pictured by the plaque commemorating Foosaner are, from left, President Anthony J. Catanese, Dione Negroni-Hendrick and Donald J. Hendrick.

Building Bridges

The bridge across the Botanical Garden between the Denius Student Center and the university's northern residence hall complex has been permanently named in memory of Samuel J. Foosaner, who was an early university supporter and board of trustees member. The naming is in appreciation for a \$25,000 donation from Sam Foosaner's daughter Dione Negroni-Hendrick and her husband Donald J. Hendrick of Cocoa, Fla. They are pictured here by the plaque commemorating her dad, along with President Anthony J. Catanese.

Funk Center Benefactor Publishes *Cloth and Culture*

Ruth Funk, Florida Tech trustee and benefactor, has published *Cloth and Culture: Couture Creations of Ruth E. Funk*, published by Panache Partners. A tribute to the textile arts, the volume takes readers on a journey through the couture creations Funk has made over the last 25 years. Her art-to-wear designs are depicted in more than 400 full-color images in 280 pages.



Ruth Funk

World-renowned textile designer Jack Lenor Larsen penned a scholarly foreword in the book. In it he wrote, “Forget octogenarian; think paragon. Ruth Funk, creator and collector, stitches with one hand while shaking the world with the other.”

A generous university donor since 2003, Funk in 2006 announced a \$1.25 million gift to the university for a textile arts center. With additional funds from the university, that gift has become the Ruth Funk Center for Textile Arts. Located between Evans Library and the Botanical Garden, the center opened on Aug. 29.

Since Funk first discovered the university, and exhibited at the Dream Weavers textile arts display on campus in 2003, she has given to the university. And given and given.

The artist, teacher, therapist and international collector first donated hundreds of items of kaleidoscopically colored ethnic textiles and wearable art from around the world, and jewelry and cultural artifacts of artistic and historic value. She also enriched the Evans Library’s holdings of art and design material by almost 500 volumes.

Funk has inspired, led or supplied the raw material for several events and programs. Her collection has made possible a fashion show of wearable art and exhibits in the former Funk Textiles Gallery.

She funds the annual textiles program, Uncommon Threads, which brings to Florida Tech international experts in the textile arts.

Funk’s generosity has made possible Florida Tech’s first textile course as well as the annual Ruth Funk Visiting Professor in Textiles.

For information about Funk’s book, contact Carla Funk at (321) 674-6129 or e-mail cfunk@fit.edu.

New Endowment Created for Civil Engineering Undergraduates

The department of civil engineering has announced a new endowment, the Civil Alumni Recruitment Endowment (CARE). The endowment, which so far totals \$29,000, will be used to fund undergraduate scholarships and graduate fellowships.

“We are grateful for the generous contributions from more than 25 alumni and several faculty members who have made this fund possible,” said **Ashok Pandit**, professor and head, department of civil engineering. “Its purpose is to assist in the recruitment and retention of



Ashok Pandit

outstanding students in civil engineering.”

Florida Tech offers bachelor’s, master’s and doctoral degrees in civil engineering. During the 2008–2009 academic year, 146 students were enrolled. Civil engineering is a professional engineering discipline that deals with the design, construction and maintenance of the physical and naturally built environment, including works such as bridges, roads, canals, dams and buildings.

Fellowship Funded for Environmental Problem-solver

The South Brevard Garden Clubs Association has funded a one-time \$1,000 fellowship for a graduate student who “exemplifies the best and brightest for our future and who believes in finding solutions to environmental issues facing us now and in the future.”

The award will be made this fall to a student in the department of marine and environmental systems (DMES). The application process includes a 500-word essay on the student’s career goals and on how the applicant intends to assist in solving environmental problems. A qualified candidate must have a minimum grade point average of 3.0 and be pursuing a master’s or doctoral degree in the fields of environmental science, environmental resource management or coastal zone management.



from the FTAA President

From the desk of Association President Russ Ballagh '74

Pioneer Project

As we culminate Florida Tech's 50th Anniversary celebration, we've taken time to revisit the lives and roles our pioneers played in the founding of a great university. Writer and alumna **Joan Bixby '75** has passionately authored the history column within the pages of *Florida Tech TODAY* and has spoken of the courage needed to create a vital campus and overcome great obstacles.

During the past three years, the Alumni Association board of directors has overseen the videotaping of interviews in the Pioneer Project. Interviews are with many of the early and later campus leaders who stand apart in their contributions to the rich history of the university.

To date, we have interviewed **Mike Babich, Carlos Barba, Joan Bixby, Tom Bowman, Tony Catanese, Denton Clark, Perry Clendenin, Frank Cockerham, Charlie Corman, Dick Enstice, Gene Fetner, Bob Fronk, Hank Hughes, Bill Jurgens, Melanie Keuper, Dave Latham, Jim Lesser, Richard MacKenzie, Tom McFarland, Dwayne McCay, Julius Montgomery, Gordon Patterson, Bill Potter, Betty Preece, Andy Revay, Welby Risler, Bill Roy, George Shaw, Joan Sherman, John Simmons, Lynn Weaver, Frank Webbe, Harry Weber** and **Gary Wells**.

I am sure there will be more interviews. Wonderful stories have come from this project, and each interview has contributed inspiring recollections. For years to come, alumni, students and friends can replay these reminiscences and learn more about our history.

Without question, **Bob Taylor**, head of the department of humanities and communication, has been vital in this project in conducting each and every interview. **Amanda Burns**, director of the F.W. Olin Engineering Studio, has been fabulous in arranging for camera personnel, facility scheduling, directing and editing these interviews. Speaking of our early pioneers with a can-do attitude, both Bob and Amanda share the identical quality. Thank you, Bob and Amanda.

As this project comes to a close, it will become available in DVD and electronic downloadable formats for everyone to appreciate. This is a "can't miss" perspective, and we hope you enjoy it as much as we enjoyed producing it.

Don't Miss Homecoming 2009

As for the alumni association, we officially conclude the 50th Anniversary festivities at Homecoming 2009, scheduled Wednesday through Sunday, Oct. 14–18. The welcome reception will be on Thursday in the Rathskeller, a tour of the blockhouses and gantries at the Cape is on Friday morning, receptions will be on Friday evening for various affinity groups and the parade will take place on Saturday morning as is our tradition. Two special events will take place on Saturday. These are the dedication of the Keuper statue and burial of a time capsule, which follow the all-campus and community barbecue.

On Saturday night, the alumni association will host the traditional Homecoming Banquet. Among those we honor will be our military's General Officers and Senior Executive Service (SES) personnel. Alumni from this university have worn 67 stars, and 10 SES graduates are part of that total. Please reserve your tickets early by going online. On Sunday a golf tournament is scheduled with an 8 a.m. "shotgun" format competition.

Go Panthers!



Flying Car

Bernie Fuchs '70, left, stands with Richard Gerch in front of a street-legal airplane, the Transition. Gerch, who attended Florida Tech in 1971, is a vice president at Terrafugia, the firm that makes the car/plane. The first customer delivery of the \$200,000 roadable aircraft is expected in 2011. For more information, visit www.terraflugia.com.



On The Road

**Alumni
Receptions
Reconnect
Old Friends
and Make
New Ones**

New York



At left, a family talks with Tim Coulter '07 and Sharveen Seebaluck '05 at the Water Club Restaurant on the East River.

Boston



Andy Rhyne '02 and Libby Rhyne, at right, meet prospective students and parents at the Boston Harbor Hotel.



Bernie Fuchs P.E. '70, Boston chapter president, wears his 50th anniversary cap to the alumni reception. Here he gets to know a prospective student and her parents.



President Anthony J. Catanese, at right, meets a prospective student and his dad. Helping to tell the Florida Tech story, from left, are: Farhan Elahi '07, Brian Fischer '97, Sharveen Seebaluck and Tim Coulter.

Dad Vail



Relaxing after the races are, from left: Mike Gordon '94; Melissa Gordon; Melissa Klos, annual giving associate; and Wendy Campbell '94.



Smiles all around. President Anthony J. Catanese catches up with Jonathan Zung '86 and Renee Zung.



Dad Vail Regatta Graduation

Posing with President Anthony J. Catanese in the Vesper Boathouse on Boathouse Row in Philadelphia, Pa., are crew team members, from left: Jimmy Woodard, Matt Strand, Ryan Krajcik, Paul Bunkers, Taylor Brown and Jennifer Johnson. Because the 2009 Dad Vail Regatta coincided with Spring Commencement, these new grads accepted their diplomas from President Catanese after they completed their races.

Washington D.C. area



Picnic organizer Larry Pollack '85 keeps the grill warm.



Martin Schmidt-Bremer Jr. '96, '99 M.S., welcomes his classmates to the festivities.



Lucy Massimillo Hick '97 brought daughter Chloe, 19 months.



From left, Timothy "Troy" Lower '03 M.S. stands with Ethan, Kayla, Alumni Association Executive Director Ken Droscher and Delice at check-in.



Hot dogs, hamburgers, sandwiches and fruit were just some of the goodies available as nearly 100 alumni, friends and prospective students attended the annual D.C.-area picnic. It was held June 27 at Lake Accotink Park, Springfield, Va.



They needed lots of watermelon to feed this hungry crowd.

Huntsville



From left, Candace Rippey and Samantha Griffin of the Redstone Arsenal site join College of Business Dean Bob Niebuhr and Jack Macris, who also works with the Huntsville program.



Lady Pollard, center, receives her professional master of business administration degree during May 15 graduation ceremonies in Huntsville, Ala. Pollard, who also earned an Outstanding Student Award, was one of 189 invited to the ceremony to receive degrees bestowed by Florida Tech President Anthony J. Catanese, left, and Cliff Bragdon, vice president of the Office of Strategic Initiatives, right.



Carolyn and Bob Arnold '82 M.S. visit with Wes Sumner, associate vice president for university relations.



TRAVEL WITH US

Bahamas Cruise—Oct. 12

Take a four-night cruise and complete the week at the 2009 Florida Institute of Technology Homecoming Festivities!

- Take Royal Caribbean International Cruise Lines' *Monarch of the Seas* departing from Cape Canaveral on Monday afternoon, Oct. 12, 2009, and cruise to the Bahamas
- Return the morning of Friday, Oct. 16 and enjoy a weekend of fun and friendship with former students and faculty members during Homecoming
- Ports of Call include: Coco Cay—a private island in the Bahamas and Nassau, Bahamas
- Ship features include: Rock climbing wall, sushi bar, casino, two outdoor pools, teen-only areas, day spa, fitness center and more!

Fares: Inside: Category N \$317 per person based on double occupancy. Ocean view: Cat I \$342 per person based on double occupancy. Balcony: Cat JS \$742 per person based on double occupancy. Third and Fourth passenger \$242 per person. Inside cabin for four is \$1,118 or \$280 per person.

One person in each cabin must be 21 years of age. Prices include port taxes, charges and fuel supplement. \$50 from each passage will be returned to the Florida Institute of Technology Alumni Association.

This cruise is available on a first come, first served basis.



Relax... you're with us

California—New Year's Getaway—Dec. 29

Enjoy the next holiday season in leisure and experience once in a lifetime opportunities.

- Go behind the scenes to observe the magnificent floral floats being decorated for the Tournament of Roses Parade
- Enjoy reserved seats at the amazing "Glory of Christmas Show" at the Crystal Cathedral
- Attend a New Year's Eve Gala Dinner Dance with live entertainment and a champagne toast to the New Year!
- Sit in reserved section seats and watch firsthand the Pasadena Tournament of Roses Parade

Land only tour: \$1,249 per person based on double occupancy and includes five days and six meals. (Air travel priced separately through various gateway cities.) Departure date: Dec. 29, 2009

For more information
on these trips, contact
Diane Deaton
ddeaton@fit.edu
(321) 674-7198



First Fraternity

Today nine Greek fraternities and sororities thrive on campus where once there were none.

The first local fraternity, Alpha Kappa Pi, formed in 1965 in preparation for becoming a chapter of the national fraternity, Pi Kappa Alpha—the Pikes—in 1968. The Pikes celebrated their 40th year at 2008 Homecoming, the university’s 50th anniversary.

Some of the original “pre Pikes” were **Dave Davis** ’68, the first president; **William “Ozzie” Osborne** ’68, **Danny Friedman** ’68 and **Jim Ogan** ’68. **Jim Hughes** ’74, one of the first pledges, is known as “the sparkplug for keeping everyone together.” All were among the first to move into Florida Tech’s first frat residence, Pike House. The large, white-pillared domicile “built for retired ministers” is located on the Indian River in Melbourne. Purchased for \$56,000, the residence is still home to Pikes.

Meeting girls posed some difficulty for these early brothers as there were few on campus. Hughes, who is now retired from IBM and lives in New Hampshire, recalled that “going to Teen Town worked pretty well.” That was a Saturday night event at the Melbourne Auditorium.

Visiting the beach was also a challenge as there was no causeway at the time. It could take almost an hour to cross the bridge if the section in the middle was opening to let boats through.



“We were also very civic-minded,” said Osborne, now retired and living in West Palm Beach. “We worked cleaning up the Botanical Garden before it was actually a garden and built the first bridge over the creek there.”

Hughes remembered the work parties and said, “It was just a swampy area then, not a garden. We earned \$1.25 an hour as work studies.”

Osborne recalled some tricycle races for a forgotten cause at what was then the main mall in Melbourne, at Babcock Street and Hibiscus Boulevard. The fraternity also started the first sports on campus—basketball

and baseball. But what these early brothers worked hardest at, besides their studies, was to become a Pi Kappa Alpha centennial chapter. After they met the requirements, Osborne and **Bruce Klacsman** ’68 drove to Memphis, Tenn., and New Jersey for the evaluations required. The Zeta Sigma chapter was born March 1, 1968. With 55 names on it, the charter still hangs today at Pike House. Founding President **Jerry Keuper** and university pioneer **Ray Work** were initiated as Pikes as well.

“In those days everything came together right at once. It was a very special time,” said Hughes. “Being a Pike is like the definition of a legacy: something you can’t buy and something death won’t take away.”

Karen Rhine



Photo left: Jim Thomas ’74 and Eric Aronchick are proud of the Pike’s well-filled trophy cabinet in Pike House, the fraternity’s riverside residence.



From left, current Pike House residents Hunter Knight, Mike Skaja and Eric Aronchick, and Jim Thomas ’74 pose in front of Pike House. The Pi Kappa Alpha stone letters date from the ’80s.

Order your
limited-edition book today!



No Small Dreams: Florida Institute of Technology, 1958-2008

by Jay Wilson

Thirty-seven cents. This first donation to Jerry Keuper, made at least partly in jest at a bar in Indian Harbour Beach, led to the creation of one of the nation's top technological universities, Florida Institute of Technology. The remarkable story of the university as it unfolded over the intervening decades is handsomely told in words and pictures in *No Small Dreams; Florida Institute of Technology, 1958-2008*. This beautiful coffee table book details the university's journey from its origin as the "night school for missilemen" to the vibrant university still growing today.

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Melbourne, FL 32901

In Memoriam — David R. Clutterham

David Clutterham, retired professor and former head of the departments of mathematical and computer sciences at Florida Tech, passed away May 30, 2009. He was 87.

Born and raised in Chicago, Ill., Clutterham's excellence in high school track earned him a scholarship to Cornell College, a private liberal arts college in Mt. Vernon, Iowa. His preferred major was electrical engineering but since it was not offered, he chose mathematics. He met and married Jean Ballou, the mother of his children, while at Cornell.

During WWII, Clutterham's service in the U.S. Navy aboard the *USS Tinosa* (SS 283) in the Sea of Japan earned him the Silver Star. His son Jack said that his father spoke very little about his wartime service. One evening, however, when they watched a movie depicting a fired torpedo that circled back to the ship, his father commented, "We had one of those."

After the war, Clutterham completed a master's degree at the University of Arizona at Tucson. There, the family had the first two of their

four children, twins Lars and Beth. Daughter Ann was born in Champaign, Ill., while Clutterham was completing requirements for a doctoral degree.

Clutterham then worked in the Fort Worth, Texas, area and lived in nearby Lakeside, where he was elected the town's first mayor. Jack, the family's fourth child was born here. In 1958 Clutterham joined Martin Marietta in Orlando, Fla., to enter the new field of computer development.

The Clutterhams moved to Brevard County in 1965 for David's position as a senior scientist at Radiation Inc. (now Harris Corp.). Clutterham also became a Florida Tech adjunct faculty member, teaching mathematics, and the family became members of the First United Methodist Church of Melbourne. In 1967 he became adjunct department head of computer science and, by 1968, left Radiation to assume the department head position at Florida Tech full time. He served in that capacity until he retired in December 1989.

Harry Weber, former dean of the graduate school, commented that

the "scholarly Clutterham was well respected by his faculty." One of Clutterham's faculty members, **George Abdo**,

said his boss was very receptive to the preferences of his faculty members. For example, Abdo cherishes the memory of Clutterham pointing out to him a National Science Foundation summer opportunity that permitted him to produce movies for classroom use. It became "one of the best times of my life," said Abdo.

After Jean died in 1981, he married Nonnie Redmond. They shared a happy life at The Great Outdoors in Titusville, where Clutterham enjoyed woodworking and served The Great Outdoors Church with devotion. He was also a member of the Gideon Bible Society.

Clutterham is survived by his children Lars and Jack Clutterham, Jane Ott, Beth Venkataraman, Ann Stiles and Ellis Redmond; 11 grandchildren and two great-grandchildren.



In Memoriam — Betty Peters Preece

Betty Preece, Florida Tech pioneer, former faculty member and university benefactor, passed away May 17, 2009. She will be remembered for her tireless efforts in advancing science education for all, including minorities. **Edward Kalajian**, who worked with her on many Junior Engineering Technology Society projects over the years, said, "She was a strong volunteer. You knew when she was involved on a project you could count on her."

A native of Lexington, Ky., Preece was the first woman to receive an electrical engineering degree from the University of Kentucky in 1947. In 1974 she received a master's degree in science education from Florida Tech.

Preece joined the faculty in 1965 as an adjunct professor of graphic science and was a Melbourne High School physics teacher for 18 years.

Her first position after graduating from the University of Kentucky was with the General Electric Co. in New York as a service shop engineer. In 1950 she became the first woman engineer at the Eastern Test Range, Cape Canaveral.

Preece worked tirelessly throughout her life to advance engineering and science education and careers at local, state and national levels.

An organizing member of the Society of Women Engineers (SWE), she joined in 1950—its first year—and became a Fellow after serving nationally. She was a life member of the IEEE, a member of AIAA, and was part of many other organizations, both local and professional. She was a member of the electrical engineering honor society Eta Kappa Nu, and educational honor societies Delta Kappa Gamma and Phi Delta Kappa. On three separate occasions, she was a U.S. delegate to international physics education conferences with Japan and China.

Preece was honored many times for her work as an engineer and as an educator. For example, she received the Distinguished Service citation from the American Association of Physics Teachers, Sigma XI Brevard County Science Service, the DAR National Thatcher Medal and was named the Indialantic (Florida) Citizen of the Year. She was also the Florida nominee for the Presidential Award for Science Teaching and named a Mortar Board Woodrow Wilson Foundation Fellow in Physics.

In 1991 Preece and her husband Raymond established the Margaret and George Peters Scholarship in the University of Kentucky's College of Engineering, supporting electrical engineering undergraduate students. They also endowed the Eric and Marion Preece Women in Engineering Scholarship at Florida Tech.

She was a member of the Eastminister Presbyterian Church for more than 50 years. Preece's husband Raymond, a pioneer in the U.S. space program, died in September 2008. She is survived by her sons Eric and George.

Joan Bixby

MORE THAN MEETS THE EYE

Florida Tech
HOMECOMING 2009

PRELIMINARY SCHEDULE OF EVENTS

THURSDAY, OCTOBER 15

- 11 a.m.–2 p.m. Office Decorating Contest
5:30–7 p.m. Welcome Reception—Rathskeller
7–9 p.m. CSA Talent Show—Gleason Performing Arts Center

FRIDAY, OCTOBER 16

- Noon* College of Aeronautics' Skurla Award Luncheon—
John and Martha Hartley Room, Denius Student Center
1–4 p.m. Alumni Association Board of Directors Meeting
6 p.m. Hangar Party—FIT Aviation

SATURDAY, OCTOBER 17

- All day College of Aeronautics Aviation Day—FIT Aviation
11 a.m. Homecoming Parade
All campus and community barbecue—
following parade—Panther Plaza
6:30–7:30 p.m. Alumni Association Hospitality—John and Martha
Hartley Room, Denius Student Center
7:30 p.m.** Alumni Association Banquet—John and Martha Hartley
Room, Denius Student Center

SUNDAY, OCTOBER 18

- 8 a.m.** Homecoming Golf Classic—Baytree National Golf Links
Shotgun format (Golf clubs available to rent for \$30.)

**Payment required for these events. Schedule subject to change.

**For complete information
by area, please contact the
following:**

*** College of Aeronautics or
FITSA, Joyce Tsairis,
(321) 674-7619 or jtsairis@fit.edu
** Alumni Affairs, Hazel
Rosskamp, (321) 674-7190 or
hrosskam@fit.edu
Athletics, Michelle Delellis,
(321) 674-8032 or
mdelelli@fit.edu
Student Affairs, Judy
Thompson, (321) 674-8080 or
thompson@fit.edu**

**For the most current
information, go to
<http://homecoming.fit.edu>**

**SEE REGISTRATION
FORM ON NEXT
PAGE OR REGISTER
ONLINE**

Go to **<http://homecoming.fit.edu>** to register online
or contact the Office of Alumni Affairs.

Homecoming 2009 Registration Form



To register by credit card or check (payable to Florida Tech Alumni Association), fill out this form and send to:

Florida Institute of Technology
Office of Alumni Affairs
150 West University Boulevard
Melbourne, FL 32901-6975

You may also register online at <http://homecoming.fit.edu>

Name _____
Address _____
City _____ State _____ ZIP _____
Phone _____ E-mail _____

Saturday, Oct. 17

Alumni Association Hospitality—6:30–7:30 p.m. # Attendees _____ @ no charge

Alumni Association Banquet—starts at 7:30 p.m.

Attendees _____ @ \$40 individual/\$75 couple =

BANQUET TOTAL \$ _____

Choice of entrée: BEEF, SALMON or VEGETARIAN

Please indicate entrée selection for each member of your party

Name of guest _____	<input type="checkbox"/> Beef	<input type="checkbox"/> Salmon	<input type="checkbox"/> Veg
Name of guest _____	<input type="checkbox"/> Beef	<input type="checkbox"/> Salmon	<input type="checkbox"/> Veg
Name of guest _____	<input type="checkbox"/> Beef	<input type="checkbox"/> Salmon	<input type="checkbox"/> Veg
Name of guest _____	<input type="checkbox"/> Beef	<input type="checkbox"/> Salmon	<input type="checkbox"/> Veg

Sunday, Oct. 18

The Homecoming Golf Classic, hosted by Baytree National Golf Links, is on Sunday, Oct. 18.

Registration begins at 7 a.m. with shotgun start at 8 a.m.

Golf entry fees:

\$100 per player	\$	_____
\$360 per foursome	\$	_____
\$ 60 university students	\$	_____
\$ 30 rental clubs <input type="checkbox"/> R <input type="checkbox"/> L	\$	_____
TOTAL	\$	_____

GOLF TOTAL \$ _____

- Check enclosed
 Credit Card: Visa MasterCard American Express Discover

Cardholder Name _____
Card # _____
Expiration Date _____ CV# _____
Cardholder Signature _____

TOTAL AMOUNT REMITTED \$ _____



Florida Institute of Technology
High Tech with a Human Touch™



photo by Dave Potter for Spaces magazine



photo by Dave Potter for Spaces magazine

The Scott Center features extra insulation for added energy efficiency.

REACHING FOR SUSTAINABILITY

More and more, Florida Tech is building and operating with an eye to the energy efficient and environmentally friendly. This goal is especially evident in the new buildings going up across campus, which are monitored by **Greg Tsark**, university architect. But existing structures, too, are under scrutiny. They are part of a campuswide Siemens-commissioned evaluation. The 2008 study reviewed how well the university can protect the environment and save money through energy-efficient products and practices.



Of the three new buildings to open in 2009, the Scott Center for Autism Treatment, completed in August, is the university's pride for its cutting-edge eco-conscious construction. The building is designed to meet Silver Certification in the LEED rating system.

LEED Certification recognizes the use of environmentally friendly practices during construction or remodeling and for the life of the building. It's available at four levels: Certification, Silver, Gold and Platinum, and as may be surmised, includes a progressively lengthier checklist as the level increases.

The Scott Center checked off LEED requirements externally as well as inside. It was built to collect storm-water efficiently and channel it to nearby retention ponds. Its landscaping is water-efficient, with intensive xeriscape plantings. The parking area designates spaces for alternative fuel vehicles and bicycles.

The primary energy hog in Florida buildings is usually the cooling system. The Scott Center is packed with extra insulation and uses its own chilled water plant as do the Harris Village residence halls and Emil Buehler Center for Aviation Training and Research. The use of a chilled water system is one of the most efficient ways of providing air conditioning and will be used on the newly completed Funk Center for Textile Arts



A crane is used to install the chiller unit for the cooling system used in the Scott Center.



and the Harris Center for Science and Engineering. Included in the Siemens energy efficiency study is providing chilled water loops campuswide.

Also in the Scott Center, paint and carpeting were selected for their low volatile organic compound content, thus making the air more healthful. The water fixtures—toilets, sinks and showers—use low-flow water devices, and high-efficiency lighting is installed throughout. Construction at the Scott Center also follows the LEED dictum to use local and regional materials and to recycle as much building waste as possible.

“Of course, we would like for all our buildings to meet LEED standards,” said **Rob Ghiotto**, Florida Tech project manager for new construction and major renovation. “But, realistically, costs can be prohibitive. So we do as much as we can where we can and call it ‘LEED Lite.’”

The Funk Center embraces a LEED value in its site selection, placement near Evans Library, where there was already a big area of asphalt. “The building doesn’t sprawl. We didn’t destroy much plant life putting it there,” said Ghiotto.

The building also employs the ability to monitor and control the air conditioning system. Cooling



Rob Ghiotto oversees the progress on the Harris Center for Science and Engineering.

can be modified according to usage patterns, which saves energy and keeps occupants more comfortable. The Funk Center’s roof is made of a light aggregate material with some reflective capability and much of the interior lighting is high-efficiency.

The Harris Center was built with a lot of glass, which is attractive to its occupants but can result in radiant heat gain. That’s mediated, though, by a “Low E” film applied on the glass as well as by the building’s block and brick cavity-wall construction, which also protects against heat absorption and cool air loss.

ENERGY STAR appliances, such as refrigerators in break rooms, are also going into the new buildings. They meet strict energy efficiency guidelines set by the Environmental Protection Agency and the U.S. Department of Energy.

Ghiotto led the recycling committee a few years back. The organization managed a successful unified campus effort to get single-stream recycling into full swing. This included providing blue recycling containers and dumpsters throughout the campus and an educational effort to inform students, faculty and staff of how to implement a single-stream recycling system. Information can be found on the Florida Tech Web site at <http://facilities.fit.edu/recycling.php>.

The facilities department will also be doing its part, replacing its fleet of pickup trucks with golf cart-type vehicles that will attach to solar chargers. The university will sell power back to FPL during the day and draw from the grid at night when demand and the electric rates are lower. This will reduce carbon dioxide and carbon monoxide emissions and save money and fuel.

The university’s WFIT 89.5 FM radio station made a “green” premium available at its spring fund drive. With the help of a local nursery, the station offered a Florida native tree instead of a tote bag or a mug, for example, gaining 43 pledges for the premium and lots of appreciative feedback.

“We’ll offer an ecofriendly premium every fund drive now,” said station manager **Terri Wright**. This fall she’s working with the Nature Conservancy to offer a pledge level for an oyster mat. The mats, made by volunteers, go into the Indian River Lagoon and turn into healthy oyster beds.

Florida Tech’s embrace of diverse and numerous opportunities to reduce waste, save energy, conserve resources and recycle is building a campus foundation. “We will make a difference,” said Ghiotto.

Karen Rhine

The new Harris Center for Science and Engineering, adjacent to the F.W. Olin Physical Sciences Center, is nearing completion.



The Green Theme:

PROFESSORS PURSUE RESEARCH, INNOVATION ON MULTIPLE FRONTS



John H. Trefry

Conserving resources. Understanding the environmental sensitivities of the world around us. Exploring new ways to do old things more efficiently. Florida Tech faculty are involved in projects that span a broad range of topics—but whether or not you label them “green,” the subject matter is as varied as the issues faced by our ever-changing environment. A few examples:

Eyeing Alaskan Resources

John H. Trefry, a professor in the department of marine and environmental systems, has been awarded more than \$1 million in new funding from several sources to continue his environmental research in Alaska. A contract from the U.S. Department of Interior, Minerals Management Service, will allow Trefry to participate in a two-year chemical and biological assessment of the Chukchi Sea prior to opening the area for offshore oil drilling. The Chukchi Sea is located north of the Bering Strait between Alaska and Russia. Results from the study should help identify areas of ecological importance and discern whether future chemical or biological changes are related to oil and gas activities, climate change or natural variability.

“A challenge of our upcoming studies,” said Trefry, “is to distinguish the impacts of any regional human activities from processes that may relate to global climate change.”

Trefry’s federal funding is augmented by money from Shell Exploration & Production Co. and Conoco Phillips Alaska Inc. for complementary efforts in both the Chukchi and Beaufort Seas. Additionally and part of the total amount, Trefry received \$115,000 from the Cook Inlet Regional Citizens Advisory Council and Chevron for biogeochemical studies in Cook Inlet, Alaska.

“Good cooperation is essential among governmental and non-governmental agencies and oil and gas companies to coordinate research activities in Alaska. This combined funding is a strong indicator of the commitment of Alaskans to preserving their natural resources,” he said.

Trefry has conducted research in Alaska and the Alaskan Arctic since 1997. Collaborators in the upcoming studies are from the University of Texas, University of Maryland, University of Alaska–Fairbanks, Kinnetics Laboratories and the Russian Academy of Sciences.

Controlling (Your) Climate

Bob Keimer has an eye on the office thermostat. The College of Business instructor and entrepreneur is a partner in Airgonomix (pronounced like “ergonomics”), an Indialantic-based company committed to increasing air conditioning efficiency.

“When you consider surging utility costs, our dependence on foreign energy sources and challenges associated with the country’s power grid, you get an idea of the scope of the issue,” said Keimer, a longtime businessman and Florida Tech instructor since 2008. “The U.S. Department of Energy estimates that typical heating and cooling systems account for up to 60 percent of the energy used in commercial properties. Many national tenants are now requiring that the commercial spaces they utilize meet a variety of green guidelines. Many landlords want to meet

green guidelines to be good corporate citizens and to save money on energy costs, both for themselves and for their tenants.”

The idea of individual air conditioning control was born two years ago when Keimer was discussing with friends and family a nagging question: in today’s high-tech world, if every office has its own light switch, why can’t every office have its own thermostat? That led to the creation of the Airgonomix Personal Air System as a cost-effective addition to commercial heating and cooling systems for every office. According to Keimer, the patented, room level temperature control system is easy to install in new or existing space, simple to use and inexpensive.

“Using a desktop personal thermostat, employees can adjust the temperature of their individual workspaces to their personal preference,” Keimer said. “In addition to maximizing individual comfort, this significantly reduces energy use and promotes conservation.”

The system works by installing wirelessly controlled dampers in existing air ducts. The system is already being beta tested in 7,000 square feet of space at the HealthFirst corporate offices in Rockledge.

“We think this is a simple idea with serious implications for energy conservation,” Keimer said.

For more information, visit www.airgonomix.com.



Bob Keimer

Exploring Global Warming

Climate change is having significant impact in the shallow marine waters of Antarctica.

“Nowhere else than in these ecosystems do giant sea spiders and marine pillbugs share the ocean bottom with fish that have antifreeze proteins in their blood,” says **Rich Aronson**, professor of biological sciences. “The shell-cracking crabs, fish, sharks and rays that dominate bottom communities in temperate and tropical zones have been shut out of Antarctica for millions of years because it is simply too cold for them.”

But this situation is changing. “Populations of predatory king crabs are already living in deeper, slightly warmer water,” says Aronson. “And increasing ship traffic is introducing exotic crab invaders. When ships dump their ballast water in the Antarctic seas, marine larvae from as far away as the Arctic are injected into the system.”

Aronson and his colleagues published their results in the electronic journal *PLoS ONE* to coincide with the U.S. National Teach-In on Global Warming Solutions back in February.

Fast-moving, shell-crushing predators, dominant in most places, cannot operate in the icy waters of Antarctica. The only fish there—the ones with the antifreeze proteins—eat small, shrimp-like crustaceans and other soft foods. The main bottom dwelling predators are slow-moving sea stars and giant, floppy ribbon worms.

To understand their history, Aronson and a team of paleontologists collected marine fossils at Seymour Island off the Antarctic Peninsula. Linda Ivany of Syracuse University reconstructed changes in the Antarctic climate from chemical signals preserved in ancient clamshells. As temperatures dropped about 41 million years ago and crabs and fish were frozen out, the slow-moving predators that remained could not keep up with their prey. Snails, once out of danger, gradually lost the spines and other shell armor they had evolved against crushing predators.

Antarctica’s coastal waters are warming rapidly. Temperatures at the sea surface off the western Antarctic Peninsula went up 1°C in the last 50 years, making it one of the fastest-warming regions of the world ocean.

Rich Aronson



If the crab invasion succeeds, it will devastate Antarctica’s spectacular fauna and fundamentally alter its ecological relationships. “That would be a tragic loss for biodiversity in one of the last truly wild places on earth,” says Aronson. “Unless we can get control of ship traffic and greenhouse-gas emissions, climate change will ruin marine communities in Antarctica and make the world a sadder, duller place.”

Karen Rhine and Wes Sumner

ALUMNI DRIVING SUSTAINABILITY

When Alumni Association Executive Director Ken Droscher put the word out that he sought news about the environmentally conscious activities of alumni for the next *Florida Tech TODAY*, he expected a good response. After all, Florida Tech offers a variety of engineering programs, including environmental resource management and environmental science, as well as environmental education and a host of biology programs with solid emphases in ecology, biodiversity and sustainability.

But he was surprised at the great number and variety of alumni activities that are helping to save our planet. Graduates from 1978 to 2008 nationwide and from Spain responded. Below is a round-up of the landslide of replies.

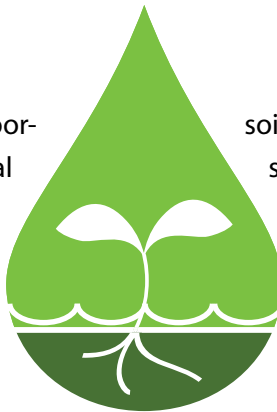
Melanie Borkowski '79 has provided coordination and oversight of environmental work for more than 20 years. Her specialties include soil and groundwater assessments, and preventative maintenance projects, which can lower operating costs, improve efficiency and make county facilities more sustainable ...

John Dixon '85 is executive director of Nekton Diving Cruises LLC, operating out of Ft. Lauderdale, Fla. A founder of the company in 1986, Dixon helps his diving passengers explore and appreciate the exotic, fragile tropical waters of the Caribbean Sea ...

Heather (Holberger) Hitt '04, '06 M.S., of St. Thomas, is an outreach coordinator for the Coastal Zone Management Division of the Virgin Islands government. She helps educate the public on managing, enhancing and preserving the coastal resources of the USVI ...

Ganesh Krishnan '96 M.S. leads Geosyntec's water resources practice in the Southeast. He assists clients with sustainable storm water management solutions and is currently leading a major storm water master planning study for Robins Air Force Base in Macon, Ga. ...

Jim Langenbach '92 leads Geosyntec's environmental assessment and remediation practice in Florida and manages the firm's Space Coast office. He directs



soil and groundwater cleanup projects for clients such as NASA and the Florida Department of Environmental Protection. These projects are restoring Florida's soil and aquifer system and incorporating green and sustainable remediation strategies ...

Claudia Listopad '99, '01 M.S., of Indialantic, Fla., is an environmental consultant in her own business, Applied Ecology Inc. She specializes in spatial analyses, remote sensing and database management for ecological studies and water resources ...

Rebecca Medvecky '06 is a staff chemist for Mote Marine Laboratory in Sarasota, Fla. Her work is in the Ecotoxicology-Chemical Fate and Effects program ...

Mark Rauscher '96 is assistant environmental director for the Surfrider Foundation, a grassroots environmental organization of 70 volunteer chapters. Their focus is on coastal erosion, water quality and preserving exceptional coastal environments for future generations ...



Ganesh Krishnan



Jim Langenbach



Mark Rauscher

ING GREEN



Dick Fieberg '01, '03 M.S., of Billerica, Mass., is a system engineer for Luminus Devices. His company's light-emitting diode (LED) products save energy and don't contain dangerous chemicals like mercury or lead, which are found in compact fluorescent bulbs ...

Emily Hayes '88, of Greenville, S.C., is the director of customer support for Renaissance Lighting. Her company manufactures and sells energy-saving LED down-lighting and is planning to introduce new down-lights to meet Energy Star requirements ...

David Rudy '96, a computer engineer, works on the CoolThreads server line at Sun Microsystems in Burlington, Mass. These servers are designed to maximize processing while minimizing power consumption ...



Joy Patterson '00 M.S. has been riding her bike to work almost daily since 1981. She is chair of the English department at Melbourne Central Catholic High School where she teaches her students to be environmentally alert.



Rekha Bangalore '91 of Austin, Texas, also recently earned a master's degree from the University of Texas in technology and IP commercialization. This has helped her with her current work, the design of a solar technology project ...

Donald Parsons '80 is regional sales manager for Appalachian Log Structures, his family's log home manufacturing business. They incorporate Energy Star-rated ceiling fans and kitchen appliances, high-efficiency air filtration systems and compact, energy-saving fluorescent lighting in their units ...

David Phillips '98 is Leadership in Energy and Environmental Design (LEED)-accredited and chief sustainability officer at Sustainable Engineering &

Design LLC, a consulting civil engineering firm in Vero Beach, Fla. The company's mission is "to utilize innovative design and provide sustainable engineering solutions to engineer the landscape of tomorrow" ...

John Rodgers '04 is executive director of the Donaldsonville Downtown Development District, a major Louisiana historic district. He revitalizes and preserves, saving important architectural history and ensuring that older structures, built more sustainably than modern ones, are not replaced by inferior buildings.



Donald Parsons



David Phillips

Continued on page 28

Continued from page 27



Kim Gronemeyer '00 Psy.D. spends her free time supporting fair treatment for animals and wild land conservation. She also educates people on the benefits of plant-based diets and about how “going green” means reducing people’s reliance on meat products ...



Kim Gronemeyer



Daniel Meeroff



Arte Roman



Michael Letsky '01, founder and CEO of RoboLabs Inc., is lead engineer for his company’s robotic solutions, which address commercial, residential and military needs. His robotic lawn mower is a green alternative to the traditional type ...

Jim Quinn '88 is the lead engineer at Orange County Choppers in Newburgh, N.Y. The company, featured on the Discovery Channel/TLC show "American Chopper," built a bike for Chesapeake Energy that runs on compressed natural gas and another for the Iowa Farm Bureau that runs on ethanol. He is currently at work on a bike for SIEMENS that will be all-electric. The company is in the first LEED-certified building in Orange County, N.Y. ...

Dan Williams '90 M.B.A., '95 Ph.D., is chief engineer for advanced engineering at TRW Commercial Steering Systems in Lafayette, Ind. He leads an R&D team on a hydraulic power steering system for commercial vehicles. The system reduces the power consumption of a semi-tractor steering system to one-sixth of its conventional value, which saves more than 100 gallons of diesel fuel annually for a typical truck.



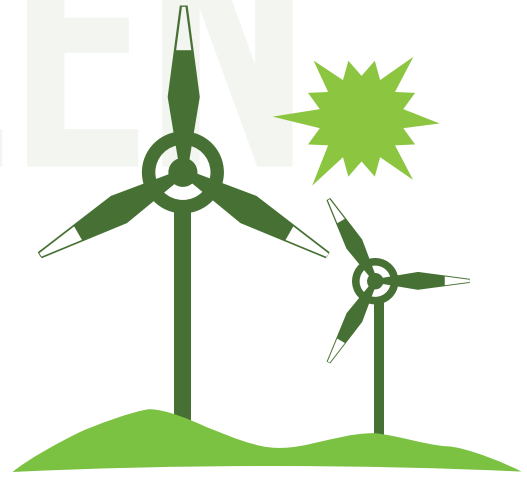
Camie Donaldson '82 of Melbourne, Fla., is a resource on sustainable landscapes and native planting. She also has assisted St. Lucie County for the past two years with planning and executing their successful Treasure Coast Green Conference ...

Daniel Meeroff '95, associate professor of civil engineering at Florida Atlantic University, built the Laboratories for Engineered Environmental Solutions from scratch. His research areas include wastewater technology

development, environmental field monitoring, aquatic toxicity and environmental process modeling ...

Arte Roman '97 works for MSCW Inc., an Orlando, Fla., planning, environmental permitting and design company that specializes in “green” and low-impact developments and habitat restorations. Other alumni working there, too, are: **John Prowell '97**, **Eric Whikehart '04** and **Anna Landman '02** and **Lance Bennett ...**

ING GREEN



Thomas Czarniak '93 is with the Environmental Assurance Branch of EG&G Technical Services at Kennedy Space Center. His work is in the area of hazardous waste management and minimization, pollution prevention and recycling ...

Jim George '78 is a graduate of the Jensen Beach campus and a maintenance supervisor at the St. Lucie Nuclear Power Plant. The plant's energy production, he said, replaces millions of pounds of greenhouse gases released to the atmosphere and millions of barrels of oil which would be used in a plant burning fossil fuel ...

Jensen Beach graduate **Tammy Mayer '86** has been an environmental consultant for 23 years and owns her own company,

Tellus Consulting. Recently diversifying into a "green" business, she created the division, Tellus Waste Consulting, which eliminates non-hazardous commercial waste by recycling ...

Paul Mellinger '88 and four other ocean engineering graduates work at Headhunter Inc. in Ft. Lauderdale, Fla. The company designs and manufactures high-standard Coast Guard certified sewage treatment systems, which are sold for offshore oil platforms, yachts and commercial vessels. With him are his brother **Mark Mellinger '90**, **Scott Mulligan '98**, **Scott Hudson '03**, **Mikhail Dembicki '04, '06 M.S.** and **Wilson Bryan**, a former Florida Tech marine operations manager ...

Spanish Power, the company owned by **Alvaro Fuster '92** of Madrid, Spain, provides renewable energy in Europe. The company has operating wind farms in Spain, Sweden and Finland and solar PV plants in Spain and Bulgaria ...

Ben Gilbert '88, of Miami, manages the West Coast (U.S.) operations of NextEra Energy Resources. "We are the largest generator in North America of renewable energy from the wind and sun," he said ...

The married couple **Russell Hall '08** and **Michelle (Denito) Hall '08** recently began a business installing renewable energy systems in Pennsylvania and New Jersey. Today they focus on solar power but have plans to incorporate other systems such as wind and hydroelectric power. In their showroom, which they will soon open, they will offer products for energy savings and water conservation and a variety of other environmentally conscious home products ...

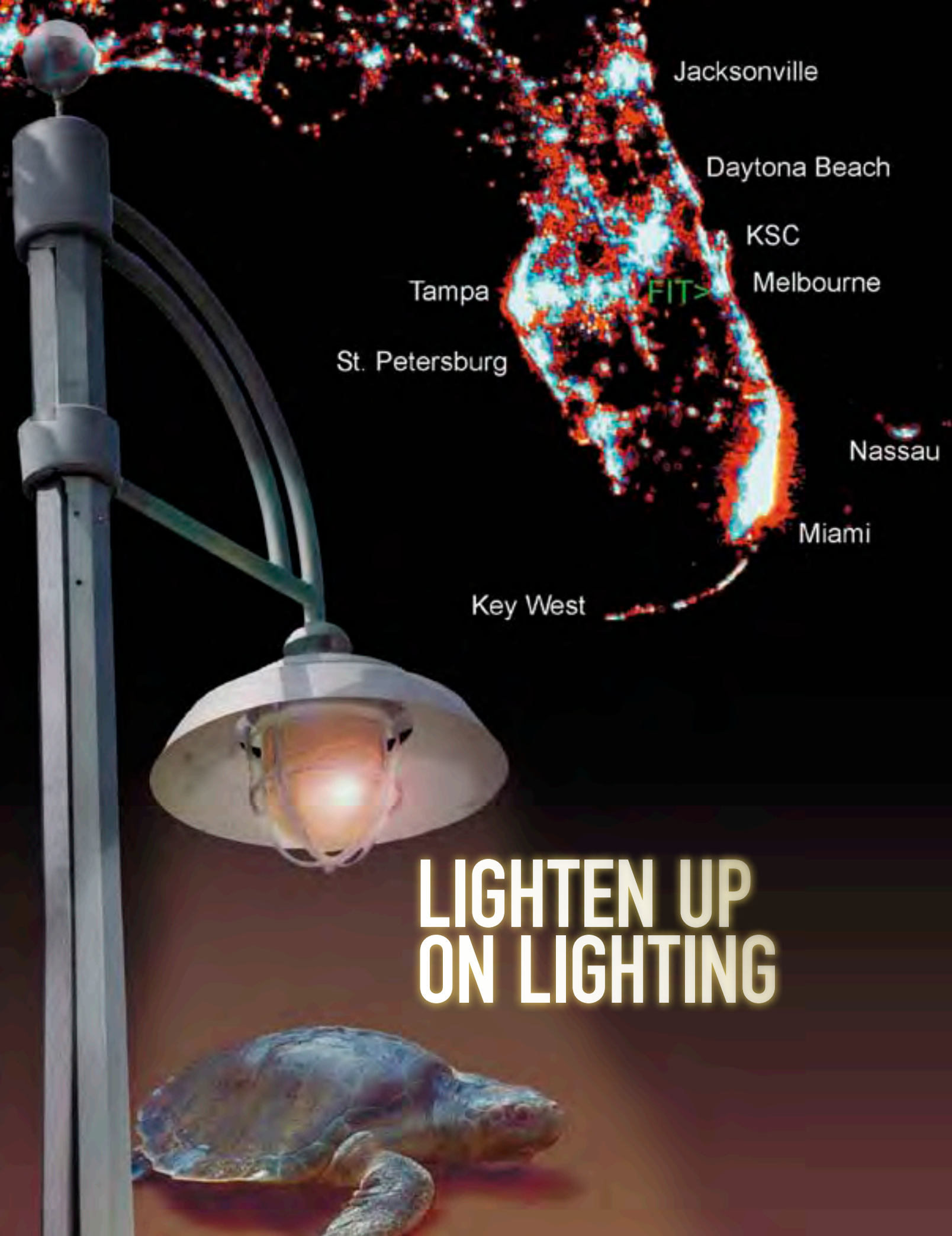
Noel Rodman '80, another Jensen Beach alumnus, owns BahamaSolar. His company installs wind/solar PV/hybrid systems in California and the Bahamas.



Michelle and Russell Hall



Noel Rodman, at right.



Jacksonville

Daytona Beach

KSC

Melbourne

Tampa

FIT>

St. Petersburg

Nassau

Miami

Key West

LIGHTEN UP ON LIGHTING



Coming home one sunny day in a just-washed car, I was unexpectedly forced to drive through a street awash with recycled water spraying from a freshly planted median strip. Aside from the obvious gripe about messing up my nice clean car, the incident set me to wondering. Why are we paying to recycle water that is almost immediately sprayed out into the street? Indeed, why pay for anything that just gets thrown away?

Water collecting in the street is an obvious form of waste. Other waste is more subtle. Take what is commonly called “light pollution.” Wasted light doesn’t pool like water in the street, nor does it pile up like garbage in the local landfill. Nevertheless, light pollution represents an enormous amount of wasted energy.

This year is the “International Year of Astronomy,” marking the 400th anniversary of Galileo’s first known use of the telescope for astronomical observations. Today, Galileo would be appalled at the night sky most Americans see. “Urban sky glow” is the main reason.

The next time you fly across the country at night take a good look out your window. Those myriad pinpoints of light below mean energy went straight into the sky, unused, like water sprayed into the street. Reflection and scattering by the atmosphere then brightens the whole sky. To see a sky like Galileo did, you’d have to travel to a remote place like the Australian Outback. That’s the only place I’ve been where not a single artificial light was visible around the entire horizon. Have you seen your own shadow just by the light of the Milky Way? I have.

Urban sky glow aside, poor outdoor lighting obviously wastes electricity (i.e., money) and the fuel burned to create it contributes to the carbon dioxide load on the Earth’s atmosphere. Lighting fixtures commonly used by businesses and houses cast as much as 50 percent of the light skywards. Some outside advertising lighting wastes as much as 80 percent! Would you allow your own electric bill to be that much higher? Maybe you already are!

Often overlooked are “glare” and “light trespass,” situations where light is cast beyond areas of actual

need. These can imperil human welfare and safety. Think about this: a burglar who has to use a flashlight, or whose movement triggers a security light controlled by a motion sensor, is much more likely to be spotted or scared away than one who is hidden in the blinding glare of the typical cheap unshielded light fixture.

Probably the least appreciated aspect of light pollution is its adverse impact on nature. Here in Florida, artificial lights can have a disastrous impact on sea turtles. Beginning in late summer nights, hatchlings emerge from nests along our beaches. Instinctively following starlight reflecting off the ocean, fledglings are attracted to any source of illumination, especially bright open areas, where they are often eaten by predators or run over by cars. As a result, most beachfront Space Coast communities now have fairly strong lighting ordinances.

Much information on light pollution is offered by the nonprofit International Dark-Sky Association (www.darksky.org). IDA provides materials that cover everything from how to choose good lighting fixtures, to advice for municipalities on good lighting practices, to assessing the effects of artificial lighting on wildlife. Their award program recognizes outstanding lighting practices.

A great example of “best practices” in lighting is the town of Harmony, Fla., on U.S. highway 192 between Melbourne and St. Cloud (see www.harmonyfl.com). The entire community has committed to “living green,” including city illumination so good you can see the Milky Way at night and comfortably walk the streets without a flashlight.

What can you do? Use common sense. Create only the amount of light needed when it’s needed, choose energy-efficient bulbs and put them in fully shielded fixtures that project light only where it’s needed. Since 1990 Brevard County’s lighting code has recommended exactly these things. Perhaps you have noticed that the parking lots of most county administrative offices, as well as the newer streetlight installations, have well-shielded lamps. Unfortunately, many local municipalities, private homes and businesses still use outdated and inefficient fixtures. Is yours one of them?



*Terry Oswalt,
Associate Provost for Research
Department Head, Physics and Space
Sciences*

**More information
on light pollution
is offered by
the nonprofit
International
Dark-Sky
Association:
www.darksky.org**

Top left: Florida’s sky glow taken by the Defense Meteorological Satellite Program. Nearly 100 percent of the light seen in the photo represents wasted energy.

Support the Keuper Statue Fund and Honor Florida Tech's Visionary Founder

During the university's golden anniversary, the legacy of Jerome P. Keuper, founder and first Florida Tech president, will be recognized in perpetuity with the dedication of a life-size bronze statue.

Join us today by making a gift to this important and historic project!

Contributions of any amount are welcome—and consider adding 37 cents to your gift as a reminder of our humble beginnings and Keuper's unwavering vision.



Artist's concept

Statue Project Committee Leadership
 Joe Brett, local retired businessman
 Denton Clark, retired president of RCA and former trustee
 Melanie Keuper, daughter of Jerry and Natalie Keuper
 Gene Fetner, retired RCA administrator
 Gene Buzzi '65, chair of the association's alumni relations committee



From left: Anthony Catanese rocks with a few members of TWITCHY —Clifford Bragdon and Thomas Waite.

TWITCHY Benefit Performance for Keuper Statue Fund

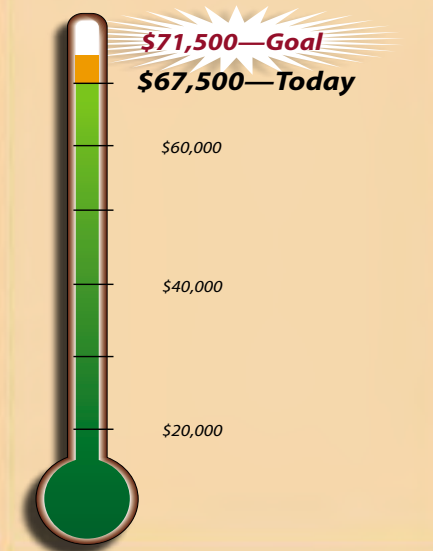
Florida Institute of Technology President Anthony J. Catanese played drums with his all-faculty band in a benefit performance on Aug. 14 at the university's Gleason Performing Arts Center. The name of the rock 'n roll band, TWITCHY, is an acronym for the names of the original faculty players who compose it. All proceeds benefited the Keuper Statue Fund.

Gifts may be securely made online at http://prostores3.carrierzone.com/servlet/fit_edu/-strse-9/Jerome-Keuper-Statue/Detail or, send a check payable to the *Florida Tech Alumni Association* designated to the Keuper Statue Project to:

**Florida Institute of Technology
 Office of Alumni Affairs**
 150 W. University Blvd., Melbourne, FL 32901

We're almost there!

Dr. Jerome P. Keuper Statue Fund



Wally Long: *Clean-Power Broker*

In this age of environmental consciousness, landfills are still a part of life for what can't be recycled. But that need not be the end of the line. For **Wally Long**, P.E. '77, closed landfills are clean energy sources in waiting. The Massachusetts engineer has designed, built, owns and operates three power plants using methane from landfills.

His latest project is at the Granite Links Golf Club in Quincy, Mass., site of a former municipal landfill. He's converting the greenhouse gas generated by the dump's million cubic feet of decomposing garbage into 600 kilowatts of electricity. Harvard University, about 14 miles away, has purchased the power as an alternative energy source since April 2009.

"The technology to do this is about 100 years old," said Long, "since the prime mover is an internal combustion engine that turns a generator."

Working with a partner as Quarry Energy Corp., Long designed, obtained the environmental permitting and conducted the studies for the project. About 60 gas wells had already been drilled into the landfill. The landfill surface was covered with a rubber membrane, then soil and grass. The wells were topped with concrete manhole covers, which generally run along the golf course cart path. Golfers can't see or smell the methane power factory percolating beneath them.

The landfill gas is mostly methane mixed with carbon dioxide. Bacteria digests the garbage in this anaerobic environment at about 98 degrees—the same bacteria that produces methane in the human body.

"The wells should produce enough methane for the power project for at least 10 years," said Long. His job now is to ensure safe operation, maintain the equipment and gas collection system, and gather data related to emissions permitting requirements.

Clean energy sources such as methane from landfills offer direct benefits to the electric grid. The grid draws most of its power from large power plants that are typically located far away from areas with high electricity needs. In areas where demand is growing fast or already exceeds supply, reliability problems can occur. Small clean energy technologies like methane power hubs can alleviate problems in these areas.

The Quincy landfill power project follows two others. Long has been selling power generated by his plant in Attleboro, Mass., since 1998 and from his first, at a Cranston, R.I., site, since 1996.

An electrical engineer by academic degree, Long spent the first 20 years after Florida Tech working as a consultant, mainly to municipal utilities. But, he's a tinkerer and mechanic at heart. He's rebuilt a number of different types of engines, enjoys remodeling his split ranch-style house in Millis, Mass., and makes silver jewelry.

Long "hooked up" with a mechanical engineer in 1990 and became involved in the Cranston project. He learned the generator business as he went along.

Making the switch to being your own boss isn't easy, but it is rewarding.

"I worked at a large firm for all those years, but I knew I wanted to be my own boss and make my own hours. It took some time to develop a business that offered the right security and financial reward. But now I write my own paycheck and I work when I need to work," said Long.

Long is considering a move to Maine and remodeling another house, an idea he thinks his wife **Anna Young** '77 will go for.

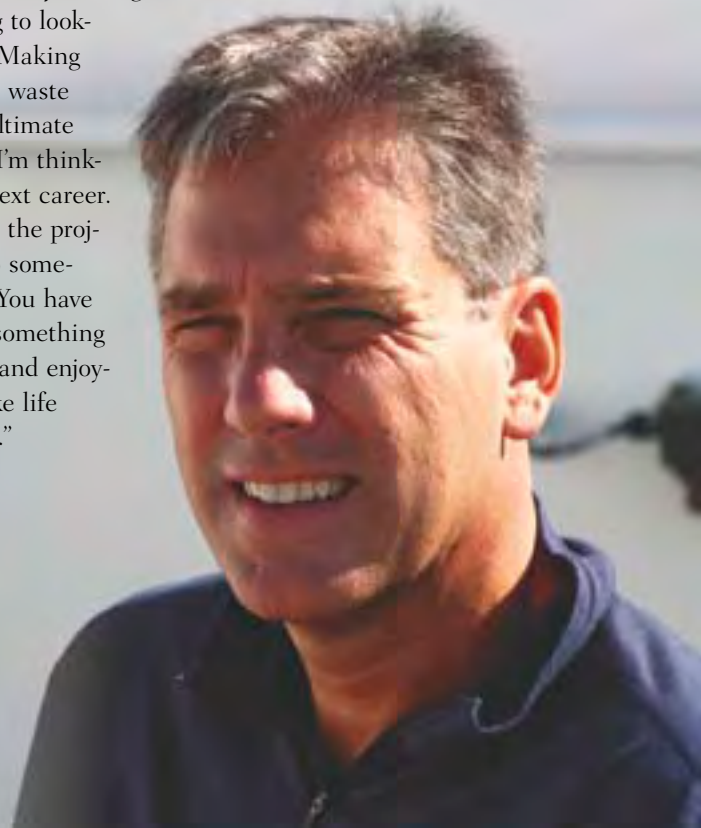
The two met at a Florida Tech crew party and married the summer of graduation. Now Anna is associate director of admissions at nearby Wellesley College.

"I look back fondly on my time at FIT," said Long. The faculty member who made the greatest impression on him was Professor Emeritus **Andy Revay**, who was then the chair of the department of electrical engineering.

"He was a great guy, always interested in a successful experience for the student," said Long.

Long easily shifts gears from reminiscing to looking ahead. Making power from waste is not his ultimate objective. "I'm thinking of my next career. I might sell the projects and do something else. You have to work at something interesting and enjoyable to make life worthwhile."

Karen Rhine





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Geoffrey Swain:

Seeking a Smooth Solution



Geoff Swain, right, and graduate student Sunil Sarangi inspect the antifouling coating on Royal Caribbean Cruise Line ship Grandeur of the Seas in dry dock in Alabama.

Geoff Swain, professor of oceanography and ocean engineering, and his team at the Center for Corrosion and Biofouling Control (CCBC) play a unique role in the smooth operation of worldwide shipping ... literally.

Hull roughness, created through the accumulation of marine growth, dramatically reduces ship efficiency. Slime and biofilm can increase drag by up to 20 percent, while hard fouling, like barnacles and oysters, impact drag by more than 60 percent. But the CCBC's research into ship hull coatings can mean significant savings—and the measure of success has shifted recently from saving money to saving the Earth.

Funded through the Office of Naval Research (ONR), Swain and his team test and evaluate ship hull coatings at test sites near Sebastian Inlet and Port Canaveral, at their new campus-based testing tank and aboard their 30-foot research vessel. They also assist shipping and marine industries in the selection and maintenance of antifouling systems.

“Our expertise is developing test protocols that allow people to differentiate the performance of

different ship hull coatings,” explains Swain. “We can test coatings at speeds of up to 30 knots, capture real-time video and real-time drag measurements on the coatings, and measure the change in performance of coatings over time under constant velocity, which no one else can do.”

“I would say many of the methods used to differentiate performance were developed here at Florida Tech,” he says. “Not many people realize that.”

A biofoul-free hull allows a ship to operate more efficiently by reducing drag and optimizing maneuverability. This means reduced fuel consumption, reduced cost and the eco-friendly benefit of lower greenhouse gas emissions.

Furthermore, according to the ONR's Web site, “Inventive biofouling prevention systems will help conserve fuel, minimize the Navy's carbon footprint, reduce the risk of transporting invasive aquatic species and prevent toxic biocides from entering surrounding environments.”

“I would say many of the methods used to differentiate performance were developed here at Florida Tech. Not many people realize that.”

Geoff Swain

Continued from page 35

With an estimated 4 percent of the world's greenhouse gases emanating from ships, a more efficient fleet contributes to a greener planet.

Today, many ships use biocide-free silicone fouling release coatings, which Swain's group has helped to develop. These coatings work much like a sticky stamp that is attached to a backing paper, yet easily peeled away. With silicone coatings, marine growth can attach to the hull but is easily removed.

This has paved the way for another facet of Swain's research—the concept of hull grooming.

“One of the most exciting projects we're involved with at the moment is a fully autonomous underwater grooming device,” says Swain. Designed and developed by SeaRobotics Corp. and ONR, the Hull BUG (Bioinspired Underwater Grooming) is a marine maintenance vehicle that operates much like a pool cleaner or robotic vacuum. The machine suctions to the hull of a ship at port and goes to work removing marine growth before it builds up and requires costly and extensive cleaning. It's a proactive approach to

biofouling prevention and a technology the team is eager to introduce to the shipping industry.

Contributing to solutions that make a positive impact is at the heart of Swain's work, as is interacting with his students.

“I enjoy this group because I know we contribute to improving antifouling technology and that will make shipping and marine industries more efficient and therefore more environmentally friendly. The students do excellent work, and I am fortunate because I interact with a fun group of people who are motivated to find solutions, and that is a good feeling.”

Christena Callahan

Top, left: Graduate student Abe Stephens uses a water jet to measure the adhesion strength of biofouling to a series of biocide-free fouling release coatings.

Top, right and bottom: Panel inspection and testing at the static immersion test raft moored at the Hubbs-SeaWorld Research Institute marina site just north of Sebastian Inlet. The 30' hydrodynamic research boat is moored alongside.





Florida Tech

Women's Soccer Team Plays for Cancer Awareness

This past April, the Florida Tech women's soccer team took its game beyond the Panthers' home base of Rick Stottler Field and participated in a unique event on Saturday, April 4, as they gave back and helped raise disease awareness.

The second annual Ovarian Cancer Awareness Matches at Viera Regional Park featured teams from Florida Tech, Florida International University, the University of South Florida, Rollins College, the University of Georgia, Florida State University, the University of Central Florida and the University of Florida. The eight state colleges faced off against each other in friendly matches that afternoon.

The event, hosted by Space Coast United Soccer Club and Brevard Parks and Recreation, honors the memory of devoted soccer and community

volunteer Chris Szuba, who lost her life to ovarian cancer three years ago. Florida Tech head coach **Fidgi Haig '92** helped Szuba's husband, Tom Szuba, president of Space Coast United, organize the event.

"It was great to be able to play for a good cause," said Haig. "The girls and I were very excited to be a part of it."

The day served three great purposes for Haig and the team: raising awareness of ovarian cancer, honoring Chris Szuba and exposing Brevard County to top-level soccer.

"We got a chance to play some quality Division I teams in front of a good crowd," added Haig.

The event had additional meaning for Florida Tech soccer player **DeeDee Newland**. The upcoming junior defender was a former member of the Space Coast United Club soccer team

and played against some old friends and teammates.

"I am glad we could come together to help put on such a great cause," Newland said. "It was great to see some of my best friends and play some high-level soccer with them!"

The occasion also included the second annual FYSA TOPS Festival for all challenged athletes from the state, beginning at 11 a.m. Food, drinks and T-shirts were provided for all players. Admission to all of the events was free, but donations for the fight against ovarian cancer were welcomed. It is estimated that Space Coast United volunteers raised more than \$10,000 at the event.

Jennifer Anilowski



Panther Paint Job

Artist Tony Ricardo paints the detail of the new and improved Panther logo at center court in the Clemente Center gymnasium on the campus of Florida Tech. Ricardo also painted the Sunshine State Conference logo, NCAA logo and around the baselines of the main court.

Come see the finished product when the Florida Tech volleyball team opens the home portion of its 2009 season on Saturday, Sept. 19, at 4 p.m. against Saint Leo University.

Trustee Inducted into Sunshine State Conference Hall of Fame

Bino Campanini, trustee, alumnus and former soccer player, has been inducted into the Sunshine State Conference (SSC) Hall of Fame. He was honored at the 2009 Hall of Fame dinner in Orlando on June 20. Florida Tech President **Anthony J. Catanese**, who also served last year as SSC president, conducted the event.

"We are extremely proud of Bino and happy that one of our most accomplished graduates has received this honor," said Catanese.

Campanini, named "All State" four times, was captain of the Florida Tech team that won the National Collegiate Athletics Association (NCAA) 1988 National Championship. As a graduate student, he was an assistant coach on the 1991 team that won Florida Tech's second national soccer championship.

The chief executive officer of Stottler, Stagg and Associates Architects, Engineers, Planners Inc., of Cape Canaveral, Fla., Campanini resides on the Space Coast.

The Sunshine State Conference comprises nine full member universities and colleges fielding 14 Division II sports.



From left, Florida Tech President Anthony J. Catanese and Sara Catanese join Bino Campanini in a proud moment when Campanini is inducted into the Sunshine State Conference Hall of Fame.

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AD-317-46

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Florida Institute of Technology



Florida Tech

Silvestrini to Take Over as Florida Tech Softball Coach



Valeria Silvestrini

Florida Tech athletic director **Bill Jurgens** has announced **Valeria Silvestrini** as the Panthers' next head softball coach, effective Aug. 1. The Argentina native takes the reigns as the program's seventh head coach, bringing five years of softball coaching experience to the Panthers.

"I am confident that Coach Silvestrini's successes as a coach and player will serve her well in her new role as head coach at Florida Tech," said Jurgens. "She possesses the coaching skills and work ethic to guide our softball program to a prominent position among NCAA DII institutions and in the Sunshine State Conference. I look forward to working with Coach Silvestrini and furthering the development of the program."

Silvestrini comes to Florida Tech from the University of North Florida where she was the assistant coach for the Ospreys the last two years. While there, she assisted in all facets of the program and helped lead UNF to consecutive winning seasons, finishing sixth of 11 schools in the Atlantic Sun Conference standings each of the last two years.

Prior to her stint at UNF, Silvestrini served as an assistant coach at Charleston Southern University and at Armstrong Atlantic State University in Savannah, Ga., where she earned her Master of Science degree in sports

medicine. She completed her bachelor's degree in physical education teaching and coaching from ISEF N° 1 "Dr. Enrique Romero Brest" in Buenos Aires, Argentina.

"I'm thrilled about the opportunity to lead the Panther softball program in one of the best Division II conferences in the country," said Silvestrini. "Florida Tech is a great school with outstanding leadership. I'm eager to begin this journey."

In addition to her coaching experience, Silvestrini is also a certified strength and conditioning specialist from the National Strength and Conditioning Association. During her tenure at AASU, she coached five Peach Belt all-conference players, four conference Players of the Week and one NFCA National Player of the Week. In 2006, the team finished 23rd in the NFCA Division II national rankings.

At UNF during the 2008 season, the Lady Ospreys broke the single season record for home runs with 50 and set a new school record for wins as a Division I program with 39. In the last two years, Silvestrini has guided North Florida to a 66-48 record for a .727 winning percentage. Six of her student-athletes were honored as All-Atlantic Sun players and four were named players of the week. Her responsibilities included planning softball and strength and conditioning practices, coaching

the team during practices and games, coordinating recruiting, organizing team travel and supervising academic development of the student-athletes. She also served as interim head coach at UNF for three months in the summer of 2008.

During her athletic career, Silvestrini played for the Argentinean National Team from 1998–2007 and served as captain from 2005 until she retired. She participated in several international tournaments, including the Pan-American and South American Championships and Games. During her stint on Division I teams in Argentina and Spain, she was named Player of the Year, Best Hitter and Best Defensive Player on numerous occasions.

While playing for Armstrong Atlantic as a senior, she hit .410 for the season and was tabbed an All-Conference, All-Region and All-Tournament Outfielder. Silvestrini is currently in the top three in three different offensive categories for single season records at AASU, including second in hits (73), third in batting average (.410) and second in runs scored (49).

Rebecca Vick

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1982



James Prappas M.S. '85 and wife Jennifer are parents to Theo, 1, Radek, 4, and Wyatt, 7. The family lives in League City, Texas.

1998

Doug DiCarlo, wife Annabelle and big sister Camille announced their newest addition, Emily Claire, in December 2008. Both parents work for competing airport engineering firms in Orlando, Fla.



Penny Vassar, M.B.A., and husband Chris welcomed Lillian Rose in January. Penny is the director of Florida Tech's Virtual Campus.

2001

Dirk Fieberg M.S. '03 and wife **Sara (Parent)** M.S. '09 welcomed their first child, Alexis Beverly in January. Dirk is a systems engineer at Luminus Devices in Billerica, Mass. Sara is a stay-at-home mom and researcher for Synnicity in Hadley, Mass. The family lives in Billerica.



Vlad Popovic and Adriane are parents to Ilse. Vlad is a scientist/engineer for Procter & Gamble, and Adriane is a stay-at-home mom who teaches horseback riding. The family

lives in New England and can be reached at ergun-equations@hotmail.com



2002

Jennifer (Jones) Thompson and husband Brian welcomed their first child Jacob Aaron in November 2008. She is employed by the City of Melbourne at the compliance laboratory, and her husband is a police officer. The family lives in Palm Bay, Fla.

2003

Jared Christman and wife Leslie announced the birth of Ella Kai in July 2008. The family resides in Ocean Springs, Miss.



2004

Timothy Van Nes, M.S., and wife **Carrie (Klingenberg)**, M.S., are parents to Julia, age 2-1/2. Timothy is with Science Applications International, while



Carrie works at United Space Alliance; both are companies at the Kennedy Space Center. The family resides in Cocoa, Fla.

2007

Christena Callahan, M.S., and husband Chris welcomed son Aidan Robert in March. Christena is university editor in Florida Tech's Office of Creative Services.



Sally Elizabeth Oliver is the granddaughter of Trustee **Jonnie Swann**.

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Oct.

18—Aviation Day

Nov.

3—Alumni reception, San Francisco
 5—Alumni reception, Silicon Valley area, Calif.
 18—Alumni reception, Puerto Rico

Dec.

7—Alumni reception, Atlanta

Jan.

13—Black History Month and Julius Montgomery Award presentation, 7 to 9 p.m.
 Date TBA—Alumni reception, Melbourne, Fla.

Feb.

2—Alumni reception, Washington, D.C., area
 9—Alumni reception, Houston
 10—Alumni reception, Dallas-Ft. Worth area

Contact the Alumni Office for more information on alumni events.

ONGOING EVENTS | HELD ON CAMPUS UNLESS OTHERWISE NOTED

WFIT Concerts and Special Events—Visit www.wfit.org
 Women's Business Center—Visit <http://wbc.fit.edu>
 The WBC provides training, counseling, mentoring and technical assistance targeting women entrepreneurs and women-owned small businesses in Brevard, Indian River and St. Lucie counties.

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