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COLLEGE OF ENGINEERING NEWSLETTER

Capstone Partner Projects : The Culminating Research and Education Opportunity

The Capstone Partner Projects, the most recent addition to the College's curricula, embody the College's essential mission to Educate Tomorrow's Technology Leaders for Career Success.

Beginning with the Fall 2014 semester, teams of undergraduate seniors (3-5 students on a team) will be challenged to produce prototypes or working solutions to problems posed by subject matter experts from partner corporations, drawing on both their classrooms training and internship experiences to develop feasible solutions to real-world problems. These corporation-specific, Capstone Projects will be undertaken throughout the senior year (i.e., both Fall and Spring semesters), allowing the participating students to apply critical thinking skills and in-depth analysis to real-world problems. Simulating real-world conditions, each Capstone Project will be comprised of up to three teams of students, guided by a subject matter expert, mentored by an appropriate faculty member, and coordinated by a Capstone Project lecturer who will be responsible for up to two such projects. Through the nine months of interactions between the corporation's subject matter expert and up to 15 students, the partner corporation will be afforded a protracted time frame in which to evaluate the students' performances on the project of their choosing, thus helping the company to better decide on whether to employ one or more of these students. While the individual Capstone Projects are identified by the partner company, the scope, scale and deliverables for each Project will be jointly determined by the company's subject matter expert, the College's assigned faculty mentor, and the College's designated Capstone Project Lecturer. Once the Project has been thus detailed, the assembled student teams will begin applying critical thinking skills and engineering applications to the task to produce workable, scalable solutions.

Students such as Alexandria East (BME), Cody Morris(BME) and Alejandro Gonzalez (MAE) will work on Capstone Projects throughout their senior year.

Currently, three nationally prominent companies (Fortinet, Florida Power & Light, and Ryder System) have each sponsored an annual project, underwriting this unique approach to integrating research and education in the development of workable and viable solutions for specific industrial concerns. In addition to the current three projects commissioned by the participating companies, future projects may include 3-D printing and prototyping into their solution approach. The Fortinet, Florida Power & Light, and Ryder Capstone Projects are, respectively, being led by Dr. Khaled Zakaria (Director, Academic Computing), Dr. Vincent Omachonu (Associate Professor, IE) and Dr. Murat Erkoc (Associate Professor, IE), and they will involve seniors from several UM departments, including the Department of Electrical and Computer Engineering, the Department of Industrial Engineering, the Department of Civil, Architectural, and Environmental Engineering, and the School of Business Administration.

Dr. Zakaria points out that the recently funded Fortinet CyberSecurity Lab will be the home for the Fortinet Capstone Project, wherein the selected students will have access to the latest in latest in hardware and software to explore and solve security issues.

Dr. Omachonu describes the FPL Capstone Project as an investigation into the "flicker" phenomena that FPL customers sometimes experience. Mr. Manny Miranda (BSME'82), Vice President for Power Delivery at FPL, points out that, "The Capstone Project is an extraordinary opportunity for Engineering students to apply their acquired expertise to actual industrial problems, challenging them both academically and practically. At the same time, it affords FPL ample time to evaluate the participants' potential as future employees."(Note: Mr. Miranda will be the keynote speaker at the Engineering Homecoming Breakfast on Friday, October 31, 2014.)

Dr. Erkoc, whose funded research efforts already include projects with Ryder System, looks forward to working with the company to challenge the seniors with issues involving supply chain management in their vehicle repair facility.

Dean James M. Tien envisions the Capstone Partner Projects as both the culmination of the students' educational career and the inauguration of their industrial careers. He adds that the corporation-defined and annually-funded projects constitute a research and educational approach that is unique among Colleges of Engineering; it also embodies the core goals of the Maker Movement within higher education "to foster a generation of Makers, producers of things, not just consumers."(See the Dean's Corner on p.2 for a detailed discussion of the Maker Movement and education's role in its success). "Here in the College of Engineering, we are striving to offer our students both the academic background and the industrial acumen to succeed in their chosen careers. The Capstone Partner Projects will truly serve this purpose."

Melissa's Corner

MELISSA DIETRICK ASKS UPPERCLASSMEN:

As any successful student can tell you, college is a lot more than just showing up to class. It is a collection of experiences, challenges and opportunities that provide the student with the tools needed to succeed, not just in their academic pursuits but also in their career. Being able to bridge what is learned in the classroom with real-world applications is what makes for a complete and relevant education. We asked several CoE upperclassmen to share their recent out-of-the-classroom experiences and to detail how these opportunities complemented their undergraduate program.

Anthony Wolliston, Senior; Biomedical Engineering:

Anthony (BME'14) spent his summer working at the National Science Foundation (NSF) Research for Undergraduates (REU) program at Georgia Southern University. There he worked with other engineers on biofuels using various high speed data acquisition systems and sensors. He describes his experience as an opportunity to "learn how intense research and industry can be and how to collaborate with mechanical engineers. By gaining insight into real-world teamwork dynamics and applying related engineering concepts has better prepared me for my post-undergraduate endeavors."

Jennifer Rodriguez, Senior; Biomedical Engineering:

Summer break found Jennifer (BME'14) on a mission trip with a group called Blue Missions. The group traveled to El Bambu, Dominican Republic, with the goal of building "an aqueduct that brought clean, fresh water from a source up in the mountain, down to the little town because, previously, the community collected the rain water in large containers on top of their homes or went up the mountain to fetch water." Not only did this trip provide Jennifer with an unique experience, "it also allowed me to implement problem-solving methods from my curriculum to address relevant issues that adversely affect communities."

Jody Garellek, Senior; Electrical Engineering/Audio Engineering:

This past summer, Jody (ECE'14) had the amazing opportunity to intern at NBC Universal in New York City. "I worked with the Advanced Projects Engineering team who design and maintain the control rooms at 30 Rockefeller Plaza, where many of NBC's studios are located." She continued, "As an Electrical Engineering student with an Audio concentration, signal processing is the focus of my major. Learning about all the signals that are processed in the control rooms(such as those from the cameras and microphones in the studios) both reinforced and enhanced what I have learned in my classes at CoE."

Kammy Diaz, Senior Industrial Engineering:

Kammy (IE'14) participated in an internship program at UM during the summer, as part of the Enterprise Resource Planning (ERP) department (working specifically with the End-to-End Business Process Review (E2E BPR) team). She helped implement new integrated Human Resources, Payroll, and Financial Management software, which "allowed me to experience what it is actually like to be part of an important team project with specific deadlines which had to be met. I was able to enhance my Visio and Excel skills, network with many professionals, and learn and understand different processes and terminology that are common among all careers."

Andrew Maxwell, 5th year of BS/MS program; Mechanical Engineering:

This summer, Andrew (BS/MS MAE'14) was an intern with DERS-Group (Delegated Engineering Representatives), as an airworthiness certification engineer, working with several aircraft companies across the U.S.(such as Airbus and Boeing) to help determine and certify specific parts for approval according to FAA regulations. "I also helped to design a new Baffle Kit and Air Induction System for several Cessna models with the use of SolidWorks, a 3-D modeling program…this entire experience was an opportunity to apply my knowledge of flight dynamics and stress mechanics to real-world applications on commercial aircraft determining the actual level of safety of each plane. This brought engineering concepts to life for me."

Nicolas Rongione, Senior, Aerospace Engineering, Physics:

Nicolas (MAE'14) spent his summer participating in the world's largest exchange program—the German Academic Exchange Service (DAAD). Through this program, Nicolas traveled to Tübingen, Baden-Württemberg, Germany and, with the guidance of a Ph.D. mentor, worked in the prestigious Max Planck biological cybernetics research institute, developing an aerial manipulator to provide insight into creating a more complex servicing robot. Nicolas feels that the experience gained while working in the College's Robotics and Intelligent Systems Engineering (RISE) Lab set the foundation for him to succeed and excel while participating in this exchange program. He adds, "One of the more important aspects of this trip for me was the chance to go beyond the classroom and build cultural and academic bridges on an international scale. Networking is absolutely critical for career success."

DEAN'S MESSAGE

TOWARDS A NATION OF MAKERS

In June, 2014, in a letter to President Barack Obama, the College of Engineering, University of Miami, along with over 150 other leading Colleges of Engineering and a host of other Federal agencies and technology companies, committed itself to supporting the national "Maker Movement", in particular to advancing the shared "priorities in STEM education, innovation, entrepreneurship and advanced manufacturing." We pledged in the letter (entitled "Fostering a Generation of Makers") to make the most of the educational opportunities associated with MakerFaires, FabLabs, Makerspaces and similar activities. These opportunities can dramatically expand the number of students who wish to become Makers. More specifically, under the leadership of the President's Office of Science and Technology, the Colleges of Engineering and the Maker community vow to:

- support education, outreach and service learning relevant to Making;
- support research that advances making technologies;
- facilitate the development of new tools for desktop manufacturing;
- expand access to shared facilities and scientific instrumentation to Makers; and
- encourage students to use senior design projects to experiment with Making and Maker-preneur ship. (The entire text of the letter to President Obama can be found at www.coe.miami.edu/makerletter.)

Actually, the College of Engineering has been proactively engaged in all the above listed "Maker" activities for over half-a-dozen years. The national focus on Making underscores the initiatives that we have undertaken to enhance our research and educational mission, as we promote our vision of "Educating Tomorrow's Technology Leaders for Career Success".

In regard to research, all three pre-college activities, we have supported a range of workshops and events to introduce local secondary students to engineering and the making technologies. As an example, our Society of Women Engineers (SWE) periodically sponsors outreach activities in local high schools; in fact, the University of Miami SWE Chapter has garnered several regional and national awards for their success in attracting girls to the engineering disciplines. Similarly, InnovAid (a student-led group known for identifying and solving unique medical problems in developing countries) and our Engineers Without Borders Student Chapter have extended their Maker-inspired activities to other parts of the world. In regard to research, all three of our strategic thrust areas – healthcare and technobiology, informatics and risk, and sustainable and smart systems – are contributing to the development of Maker technologies and/or products, including advances in tissue engineering, bionics, body parts, cybersecurity, bioinformatics, imaging, green environment, smart grid, and advanced construction. Our recently constructed Prototyping Facility – which will include a suite of 3-D Printers – is making products that are both unique and personalized. Likewise, the Industrial Engineering Manufacturing Laboratory and the decade-old Energy Assessment Center (which President Obama visited February, 2012) illustrate the College's commitment to developing innovative tools. The Civil, Architectural and Environmental Engineering (CAE) Department's Structures and Materials Testing Laboratory was recently accredited as one of only 6 centers in the U.S.to meet ISO 17025 standards in testing and calibration.

In regard to education, the College is proud of the fact that it developed a Virtual Academic Computing (ViAComp) facility in 2008, before the words "cloud computing" were even introduced. Indeed, some 40 of our teaching – and research – software programs can be accessed through ViAComp, thus allowing our students and faculty to work on their projects anytime and from anywhere. More importantly, we have been able to close roomful of desktops, resulting in space and energy savings, together with instant and widespread access to new software versions. Perhaps the most visible Maker Movement initiative that we are pursuing is the Capstone Partner Project effort; inaugurated this Fall, it offers seniors the unique opportunity to participate in industrial-sponsored projects that engage the students in "making" products and processes which can address real-world problems. These challenging projects, integrating research and education, are the archetype of applying critical thinking skills to produce workable, scalable solutions. As noted elsewhere in this newsletter, we are deeply indebted to Fortinet, Ryder System and Florida Power & Light for being our inaugural Capstone Partners.

As The Huffington Report heralds "Welcome to the Maker Movement, an evolution of millions of people who are taking big risks to start their own small businesses dedicated to creating and selling self-made products… modern technology has made it easier than ever for a single individual to create and distribute items that are customizable and unique without having middlemen like manufacturers. This growing shift will continue to affect the economy and will likely have big implications on large retailers and education. It is a special time in history that will have a transformative impact on our future…Makers will continue to be found in fields ranging from food to crafts to technology…together, Makers will push each other forward to invent and build new and innovative things. Many technologies that will drive this growing population are not even built yet. In effect, the maker movement has only just begun." (Huffington Post, July 7, 2013)

The College of Engineering is proud to be an inaugural partner in the national Maker Movement! We recognize the movement as an extension and elaboration of our core values and encourage our colleagues to promote and embed "making" as an integral part of higher education; together, we can truly become a Nation of Makers.

7TH ANNUAL NANO FLORIDA 2014 NANOSCIENCE AND TECHNOLOGY SYMPOSIUM

The 7th annual Nano Florida 2014 NanoScience and Technology Symposium (NTS) was held September 25-26 at the Student Activity Center, with the College of Engineering participating as a Platinum sponsor. Other sponsors included the Dr. John T. MacDonald Foundation Biomedical NanoTechnology Institute (BioNIUM), the UM Graduate School, FIU's Biomedical Engineering Department, and UF's College of Engineering Research Service Centers, as well as corporate sponsors, JEOL and LabTec Sales Partners.

Invited speakers and student presentations created a forum for academic and industry researchers in Florida to help identify the challenges at the frontiers of nanoscience and technology and promote closer research ties within the Florida-based nanoscience community.

From the College of Engineering, faculty participants included Dr. Cherie Stabler (Associate Professor, BME), Dr. Onur Tigli (Assistant Professor, ECE) and Dr. Ashutosh Agarwal (Assistant Professor, BME). CoE graduate students involved in the organization and staging of the event included BME Ph.D. students Amaris Genemaras, Anthony Frei, and Jordan Greenberg.

The Symposium also showcased the contributions of students (undergraduate, graduate and postdoctoral) as they presented their research and gained invaluable networking opportunities.

HOMECOMING 2014

Homecoming 2014 (during the week of October 27) will offer all alumni the chance to experience "It's Great to be a Hurricane" with scheduled traditional events such as the boat burning, parade, and college activities as well as Halloween-themed events.

The College of Engineering Homecoming Breakfast and Awards Ceremony will be held at the Bank United Center, Hurricane 100 Room on Friday, October 31 from 8-10 am. The Keynote speaker at the CoE event will be Manuel (Manny) Miranda (BSME'82), the Vice President of Power Delivery at Florida Power & Light Company. Mr. Miranda emphasized what an honor it is to be the keynote speaker, especially since the U "holds a special place in my heart, having helped mold me both professionally and personally." To secure reservations for this event, please contact Rob Weaver (BSME'08), Vice President of the CoE Alumni Association (arthur.r.weaver@gmail.com) or Ann Helmers (BSED'79 /MBA'91), CoE Director of Alumni Relations (ahelmers@miami.edu). More information on the event is also available at www.coe.miami.edu/homecoming/.

Other events of interest include: the Audrey R. Finkelstein UM Experience (http://www6.miami.edu/alumniweekend/um_experience.htm) on Friday at the Student Activity Center, the Hurricane Howl Friday evening near Lake Oceola, and the highly anticipated ACC rivalry football game with North Carolina, on Saturday at Sun Life Stadium (time TBA).

UNITED WAY CAMPAIGN

TeamUM UNITED WAY 2014

Another year, another United Way campaign… and another year wherein the College of Engineering steps to the forefront in raising funds for this worthwhile cause.

With an amazing 2013 participation rate of 86%, the College of Engineering was publically recognized by the administration for reaching a level far beyond the overall UM participation rate of 36.4%. According to Dean James M. Tien, "For 2014, the College has readily committed to reach a participation level of at least 80%, marking the 6th straight year we will support the United Way Campaign in a significant way. We know the value of this organization and know that every dollar is important." As Ann Helmers, (Director of Career Services and Alumni Relations and CoE Campaign Coordinator) adds, "The remarkable fact about the College's participation rate is not only the total amount raised, but also the willingness of so many staff and faculty to contribute; in fact, the number of Engineering 1% givers (who generously pledge 1% of their annual salary) has been steadily increasing. This is a noteworthy trend indeed."

At the kickoff of the 2014 UM Campaign, September 2, 2014, Larry Marbert (VP, Real Estate and Facilities and Campaign Chairman) pledged that in 2014, not only will UM again aim to reach a $1M total contribution but will also endeavor to increase overall faculty and staff participation. The College stands ready and willing to make the UM 2014 Campaign a success.

The Campaign runs through November 28 and contributions can be made on line through www.myum.miami.edu and accessing the link to UM United Way.

NEW FACULTY COMPLEMENT RESEARCH AREAS

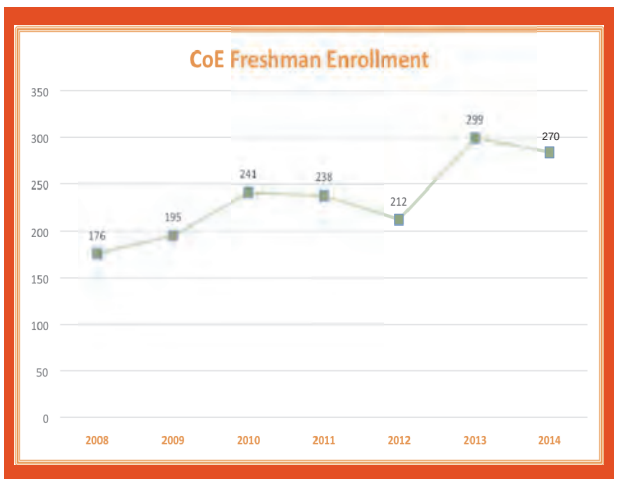
Two new faculty members, Drs. Seok Gi Lee (Assistant Professor, IE) and Ramon Montero (Assistant Professor in Practice, BME) joined the College of Engineering this Fall, adding expertise and expanded research interests to the established CoE research thrusts in health and technobiology, informatics and risk, and sustainable and smart systems.

Dr. Lee, who received his Ph.D. in Industrial and Manufacturing Engineering from The Pennsylvania State University in 2013, will pursue research activities in two divergent areas: supply chain industrial issues and predictive analytics for healthcare prevention programs. Previously he has worked with the Bloomberg School of Public Health, Johns Hopkins University, on predictive analysis of school-based prevention programs using Applied Logical Analysis of Data (LAD) to identify primary causes of children's conduct disorders. This area of research is especially important to Dr. Lee since he has two small children of his own. Additionally, Dr. Lee will pursue research projects involving manufacturing logistics and transportation systems. "I am excited to be at the University of Miami and look forward to working with my engineering colleagues and the faculty at the medical campus. I am also embracing the wonderful weather!"

Dr. Montero, born in Puerto Rico, attended secondary schools in Spain, where his father (a civil engineer) worked on large scale projects; consequently, his Hispanic background made the choice of the University of Miami very logical. He embraces the diverse and invigorating atmosphere of the College of Engineering, where he received his BS, MS, and Ph.D. degrees. "I have been a Hurricane from Day One; the College and the students are my second family." His teaching activities at the College include classes in Cell Tissue, Matlab, and Senior Design projects involving 3-D printing and technobiology devices. He also pursues industrial-funded projects, such as a recent quality control analysis of e-cigarette manufacturing. His interest in the Miami culture and environment extends beyond the campus; he enjoys the musical scene with his wife, Kaaren Styles, who emcees a local radio show and recently released an album of hip/hop/rock.

Dean James M. Tien welcomes the newest junior faculty, pointing out that their diverse and in-depth experiences will complement established research efforts already underway in the College. "We welcome their expertise and look forward to their successes in both the research and educational domains."

2014 FALL FRESHMAN CLASS – ANOTHER REMARKABLE CLASS



With the Fall 2014 incoming class, The College of Engineering will once again register a significant increase in enrolled new students, evidence of an ongoing trend begun in the College in 2008. Indeed, the 270 engineering freshmen comprise approximately 15 percent of the total 2035 freshmen enrolled at UM for the Fall semester; typically it has been about 10 percent.

This increase in enrollment continues the continual upward movement in the College's undergraduate student body, which has grown from 766 in 2007 to 1090 through 2013. The new class represents the usual breakdown by departmental major, with Biomedical Engineering drawing the highest percentage among declared majors.

In his welcoming address to the new class, Dean James M. Tien emphasized the increasing need for the engineering approach to today's challenges and the importance of honing critical thinking skills in order to achieve career success. He added, "You need to maintain your enthusiasm, embrace your can-do attitudes and sharpen your critical thinking skills for solving the world's problems. "

David Poole, CoE Director of Admission, attributes the increased interest and enrollment in engineering in part to the relevance and unique research and educational vision of the College, the increased national exposure of the College (such as President Obama's visit to the College in 2012), and the rise in the national rankings of UM. Poole also points out, "The ViAComp cloud computing facility, the emphasis on technobiology, the investment in cybersecurity and nanotechnology, and the pursuit of 3-D printing and prototyping have all contributed to the increased popularity of the College." He adds that this year's freshmen maintain the College's documented diversity, especially with female and minority groups; overall, female students represent 28% of the College's undergraduates, and Hispanic students total 29%.

Whatever their declared major, the latest incoming class significantly increases the growing number of students pursuing engineering at UM, eager to gain the skills needed to become tomorrow's technology leaders.

DR. DANIEL BERG

Dr. Daniel Berg (Distinguished Research Professor of Engineering, IE) received the prestigious Siwei Cheng award in Information Technology and Quantitative Management at the 2nd annual meeting of The International Academy of Informational Technology and Quantitative Management (IAITQM) in Moscow, June 3-5. This award was given to Dr. Berg as "a person who devoted genius efforts to applying quantitative methods and information technology to solve management problems,"; the award is in honor of Siwei Cheng, a former top leader in the Chinese Congress and currently the head of a major program on economic theory at the renowned Chinese Academy of Science.

IAITQM, with founding members from over 50 countries, including the U.S., China, Japan, Australia, and Turkey, was established in 2011 to promote innovative excellence in information technology and quantitative management.

Dr. Berg was both surprised and honored by the award, noting that this organization's members represent the most talented and experienced experts in this growing field. On the other hand, Dean James M. Tien is not surprised by Dr. Berg being the awardee, saying "Dr. Berg is well deserving of the award, which, in turn, brings honor to the College; in fact, the award's namesake will be visiting the College this coming academic year and we look forward to his interaction with our faculty and students."

THE CUBAN ENGINEER EXHIBIT

The College of Engineering, under the leaderhship of Dr. Helena Solo-Gabriele (Associate Dean for Research and Professor, CAE) recently hosted the event which opened The Cuban Engineer exhibit at the Richter Library. This exhibit (which will run through December 2014) honors the Cuban Engineer of yesterday, today, and tomorrow, and examines both the history of engineering in Cuba as well as the many accomplishments of Cuban engineers throughout history.

According to Pete Martinez (BSEE'75), President-Elect of the Association of Cuban Engineers, the opening night event (on June 27, 2014) was especially moving and inspiring thanks to the speakers' selection and extraordinary efforts of both Dr. Solo Gabrielle and Dr. Maria Estorino, the Esperanza Bravo de Varano Chair of the Cuban Heritage Collection; all of the speeches conveyed the impact and importance of Cuban engineering professionals throughout the world.

Opening event participants included (l. to r.): Dr. Estorino, Dr. Solo-Gabriele, Mr. Martinez, Mr. Molins, Mr. Pujals, Dean Mirmiran, and Mr.Mitrani.

The event's invited speakers included Maria Estonrino, Pete Martinez, Delfin Molins, Jose Mitrani, and Helena Solo-Gabriele, all of whom presented various aspects of the engineering accomplishments by Cuban individuals and groups, as well as local educational institutions' contributions to encourage students to pursue engineering careers. As Mr. Martinez pointed out, for instance, over 50 Cuban engineers contributed significantly to the development of the personal computer at IBM; the efforts of Cuban engineers in other fields were just as significant and noteworthy, with their main goal to always "work from within the system to make it better through hard work and imagination."

Dr. Solo-Gabriele emphasized that this exhibit will both inspire and educate the public to the astounding impact that the Cuban Engineer has made within national and international communities; she also enumerated the many Cuban educators who made the University of Miami their homes throughout the decades.

Sponsors of the event included: Association of Cuban Engineers, Cuban-American Association of Civil Engineers, Amigos of the Cuban Heritage Collection, Florida International University College of Engineering and Computing, The University of Miami College of Engineering, the University of Miami Libraries, and Bacardi. Additional support was also received from the University of Miami's Institute for Cuban and Cuban-American Studies and Florida International University's Cuban Research Institute.

DR. ANTONIO NANNI

Dr. Antonio Nanni (Professor and Chair of the Department of Civil, Architectural, and Environmental Engineering) has been awarded the International Institute for Fiber Reinforced Polymer (FRP) in Construction (IIFC) Medal for 2014. This award was established in 2006 to honor IIFC members who have made "distinguished contributions in the field of FRP (Fiber Reinforced Polymer) through research and/or practical applications." It is the most prestigious award of the Institution and is awarded every two years. The recipient is invited to present the IIFC Distinguished Lecture at the IIFC Conference, which this year was held in Vancouver, Canada, on August 20-22. Dr. Sami H. Rizkalla, Chairman of the IIFC Honors Committee, cites Dr. Nanni's "international leadership in the FRP field as well as his significant contributions to the advancement of knowledge in this field" as the key reasons for Dr. Nanni receiving this award.

Dr. Nanni also recently published a book, **Reinforced Concrete with FRP Bars**, (CRC Press) with two colleagues, Antonio DeLuca and Hany Zadeh, which is intended for use by practitioners and focuses on the fundamentals of performance design.

Dean James M. Tien congratulates Dr. Nanni both for his expertise and "dedication to education as well as to research in this critical area."

ACC HONORS STUDENT ATHLETES

Engineering Student Athletes Honored

The number of extraordinary engineering student athletes continues to grow. The ability of these individuals to excel in both the classroom and on their respective field of competition is both amazing and noteworthy. Nine College of Engineering student athletes were among those recognized in the 58th annual Atlantic Coast Conference (ACC) Academic Honor Roll, which acknowledges the academic excellence of ACC student-athletes during the 2013-14 academic year.

The Honor Roll, comprised of student-athletes who participated in a varsity-level sport and achieved a grade point average of 3.0 or better for the full academic year numbered a record 3,967 student-athletes for their hard work in the classroom during the 2013-14 academic year.

The University of Miami ACC Academic Honor Roll totaled 152, including the following College of Engineering students: **Grant Coffman (MAE '17)** in football, **Breanna Hayton (MAE '14)** in rowing, **JaCee Jarnagin (CAE '17)** in track and field, **Jonathan Keller (ECE '17)** in track and field, **Garret Nygren (MAE '14)** in track and field, **Ryan Otero (IE '15)** in baseball, **Jordan Tolson (IE '14)** in football, **Jasmine Villaverde (IE'14)** in soccer, and **Anthony Wolliston (BME '15)** in track and field.

Among the 32 student-athletes who earned ACC Honor Roll status for the fifth time is Garrett Nygren; also noteworthy are Anthony Wolliston and Jordan Tolson who have achieved the Honor Roll two years in a row.

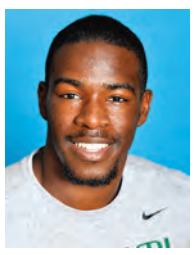
The strenuous demands of their engineering disciplines, as well as their dedication to athletics, richly deserve this honor. Dean James M. Tien congratulated all of the College's ACC Academic Honor Roll students for their hard work and commitment to both their educational and athletic pursuits.

SAM DORMAN: AT 2014 FINA

Sam Dorman

Sam Dorman (MAE'15), competed for Team USA at the 2014 FINA (Federation International de Natation) Diving World Cup in Shanghai China , July 14-17. This was Sam's first time at the World Cup, having paired with Olympic medalist David Boudia to win first place at the World Cup trials in the 3-meter synchronized event in May. The World Cup, a major world competition leading towards Olympic qualifiers next summer, drew the world's top competitors from countries such as Russia, Germany, and China. Dorman and Boudia placed fourth, a tremendous accomplishment considering the level of talent, which included Olympic silver winners. As Boudia commented "It's not easy to go into a world-level competition and handle the pressure. This is what (Sam) has trained for his entire life and he handled the pressure like a pro…I'm just happy I could be right beside him."

ANTHONY WOLLISTON: MULTIPLE AWARD WINNER



Anthony Wolliston

Anthony Wolliston (BME'15), in addition to excelling in his academic career, has also garnered a coveted spot on the U.S. Track &Field and Cross Country Coaches Association's All-American team. To be chosen, Anthony had to compile an accumulated GPA of 3.25 or higher and finish the regular indoor season ranked in the national top 48 collective listing for a relay event. Anthony, a member of Miami's 4x100m relay team at the NCAA East Preliminary, posted the 4th best outdoor 400m time in school history as well as ranking 4th in Miami history for the indoor 400m. An outstanding student athlete, Anthony is also excelling in his academic endeavors, having completed a Research Experience for Undergraduates (REU) at Georgia Southern University this summer as well as an intensive entrepreneurship workshop sponsored by Coulter Industries.

ATHENA JONES: TRAVELS ACROSS THE NATION

Athena Jones

Ask **Athena Jones (CAE'15)** what she did this summer and you will be astounded to learn she traveled across the nation, bicycling and building houses along the way and gaining "an amazing appreciation for this nation and its people." Her odyssey started in Virginia Beach, VA and ended in Canon Beach, OR as part of the Bike and Build program , which is "pedaling for affordable housing" across the nation. This service-oriented, non-profit group has helped fund more than 1,100 homes, impacted 6,000 individuals and engaged more than 13,000 young adult cyclists through 2013 over their 8 cross-country routes. Athena raised the necessary membership funds from friends and local contacts which then afforded her the opportunity to cycle across the country (for a total of 4,015 miles, averaging approximately 70 miles a day). "This type of trip has always been a dream of mine, since I began cycling at the age of 8. To be able to combine that dream with the opportunity to create affordable housing was just amazing."

As she traveled with her fellow 33 cyclists, the team would stop in tiny towns and locations where Habitat for Humanity has projects underway. "We would work with the other crews during the day and sleep in churches or dorms at night; the comradery and compassion we experienced were sometimes overwhelming." She adds, "The entire experience underscores how similar Americans are, whether they are from small towns or big cities and how alike are their needs and values." The trip deepened her desire to practically apply her academic skills in real-world situations, as well as her respect for humanitarian organizations.

Athena, who is past president of the Engineering Advisory Board and 2014 Vice President of the Florida Water Environment Association, is currently interning at NALCO (a water treatment company) and carrying a full academic schedule. Dean James M. Tien has been in awe of her accomplishments: "Her drive and dedication to her educational and personal pursuits are truly inspiring!"

COLLEGE OF ENGINEERING MICROGRAVITY TEAM

Microgravity team members Nicolas Rongione, Benton Patterson, and Filpe Gheiman proudly display the "U" during their flight.

The College of Engineering Microgravity Team, comprised of undergraduate engineering students mentored by Dr. Landon Grace (Assistant Professor, MAE) and the Department of Mechanical and Aerospace Engineering's Composite Materials Lab, conducted a novel microgravity experiment aboard a modified Boeing 727 ("The Weightless Wonder") at Ellington Field, Houston, Texas on July 17, through the NASA Reduced Gravity Student Flight Opportunities Program. The members, all MAE juniors, are Mark Agate, Felipe Gheiman, Benton Patterson, Nicolas Rongione, and Stephen Markus.

The entire team experienced weightlessness at 32,000 feet while the aircraft underwent a series of 30 parabolic maneuvers to simulate a 0g environment. According to team leader Mark Agate, "The goal was to study the effect of reduced gravity on nanoparticle dispersion. These nanoparticles will be used in composite materials that should have better mechanical properties than traditional materials."

Dr. Landon Grace, team advisor, points out that "Microgravity research allows us to study how things will behave in orbit and is therefore very valuable to the future of space exploration." Indeed, the team's efforts could possibly yield a method of producing higher strength composite materials, which may have a wide array of uses in a range of products, from aircraft parts to blenders and even to spaceships.

"Only part of the fabrication process was conducted in microgravity," points out teammate Benton Patterson," We had to ship the samples back to the Composite Materials Lab here at UM to finish the process and to be tested. But, based on our observations during microgravity, the results are promising." Indeed, the results were promising enough that NASA personnel at the Johnson Space Center have encouraged the UM team to submit their experiment for a possible flight to the International Space Station for further testing.

For Nicolas Rongione, the zero-G flight aboard NASA's Weightless Wonder is only a precursor to possible far-flung journeys to other stars." I dream of helping humanity achieve its first interstellar probe, capable of reaching and transmitting first-hand data back from nearby stars…I will be spending my efforts to contribute to the enlightenment of humanity in the final frontier."

There should be one sentence added—The Microgravity Team appears to be well on their collective way to achieving just such ambitious goals. A video of their flight is available at www.coe.miami.edu.

(The team is especially appreciative of the financial and research support they have received from the College of Engineering, Gables Engineering and the Florida Space Grant Consortium.)

ALUMNI PROFILE: ROBERT SANCHEZ


Robert Snachez

Robert Sanchez (BSECE '87), Chairman and CEO of Ryder System, Inc., with a 21-year career at the company, has advanced steadily from an IT specialist to COO, before being tapped to replace Gregory Swienton as CEO in January, 2013. Mr. Sanchez is the fifth CEO at Ryder (founded in 1933) which is headquartered in northwest Miami Dade County; it currently consists of two main divisions, fleet management and supply-chain operations. In North America, Europe and Asia, Ryder's 29,000 employees manage over 210,000 vehicles and 31 million square feet of warehouse space.

Following the recent collaborative agreement forged between the College of Engineering and Ryder to participate in the inaugural Capstone Partnerships, Mr. Sanchez readily discussed the importance of critical thinking skills and solid engineering abilities in industrial settings such as Ryder System.

Mr. Sanchez's enthusiasm for both Ryder's future endeavors and the integrated research and educational training at the College of Engineering are clearly evident when discussing the impact of critical thinking skills in solving logistics problems."Engineering is a great discipline…it inherently develops the capability of students to solve problems…we also need to expose students to broader business topics and issues…this enables them to hone their critical thinking skills and use their engineering knowledge to solve problems that go beyond traditional technical challenges… this can give engineering students a huge advantage in the workforce."

He also mentioned that many consumers would be surprised to know that Ryder provides a wide range of outsourced solutions for some of the world's most recognizable companies. Through these solutions, Ryder touches peoples' lives in ways they probably don't realize. For an example, he added, "the coffee you drink in the morning, the cereal you eat for breakfast, the car you drive, and the computer you use, have all likely been packaged, moved or delivered through a Ryder transportation or logistics network. This network is supported by a set of complex technologies, including one of North America's largest fleet of trucks, an expansive infrastructure of maintenance facilities and warehouses, and some of the most talented technicians, drivers, and engineers in the industry. Engineering plays a significant role in our ability to provide the most effective solutions for our customers. In our Supply Chain Solutions business, we optimize global logistics networks. In our Fleet Management Solutions business, we maintain more than 200,000 commercial vehicles of almost every make, model, and class. But these are not your grandfather's trucks….these are highly sophisticated pieces of equipment. Five years ago, there were two electronic sensors on a truck, today there are 26. It's our job to be better than anyone in the industry at understanding how to develop an optimum vehicle configuration that can yield the best fuel efficiency and reliability and maximize performance, safety and uptime for our customers."

Mr. Sanchez emphasized that Ryder is in the outsourcing business. "It is our job to solve our customers' problems… and even though we are very good at what we do, operating a fleet or a supply chain has become more complex than ever. Vehicle technologies are more complex, safety and environmental regulations have increased, the industry is faced with major talent shortages, and companies have limited access to capital. Despite these challenges, customers continue to expect us to do things better, faster, smarter, and cheaper. So it is imperative that we become more innovative." He believes the Capstone Partnership will enable Ryder to engage seniors on solving real-world problems, a win-win for both the students and Ryder. "For example, we have 5,000 technicians, maintaining more than 200,000 commercial vehicles, across 800 locations. We have to keep these vehicles running at the most effective cost. We have a lot of data based on the work we do that can help us identify ways to continue to improve the reliability and performance of these vehicles. Any small improvement that can be replicated across our entire network would be highly valuable to Ryder and our customers. Just imagine what a process improvement that can save, say, five dollars per truck, per month, can mean to our business. That's $12 million more to our bottom line each year, or that we can reinvest in new technologies or advancements in our solutions. This is the type of work we are looking to do with participants in the Capstone Partner effort."

Mr. Sanchez's interest and involvement with the College began with his undergraduate studies and is further evidenced in his long term participation on the CoE Visiting Committee.

GRADUATE AWARD WINNERS

The Graduate Student Awards program, initiated by Vice Provost for Academic Affairs and Graduate School Dean Brian Blake, seeks to recognize the extraordinary talents and performance of Graduate School students throughout the UM community. In the five award categories, three nominees from the College of Engineering were chosen: Outstanding Research Assistant, Janice Dias (BME); Graduate Student Exemplar, DeLante Moore (IE), and Faculty Mentor of the Year, Dr. Herman Cheung (BME).

DeLante E. Moore, an MS student of Dr. Nurcin Celik (Assistant Professor, IE), won the 2014 Graduate Student Examplar Award which recognizes a graduating student who has excelled academically while making consistent contributions that benefits others. According to Dr. Celik, "DeLante is not only an outstanding IE Master's student who was able to produce 5 peer-reviewed publications (2 book chapters, 1 journal paper, and 2 conference proceedings) during his studies at CoE, but he is also a great role model and a leader to students coming from underprivileged communities. We are very proud of him." Likewise, Dr. Noel Ziebarth (Assistant Professor, BME) praises the dedication and superior work of Janice Dias, an Outstanding Research Assistant awardee. "Janice's professional performance is truly worthy of recognition."

The Faculty Mentor of the Year award for Dr. Herman Cheung is also well deserved. He is beloved by his students and colleagues for his collegiality and mentoring skills. Veronica Fortino (Ph.D. candidate, BME) elaborated in her introduction on Dr. Cheung's amazing concern for his students and their professional advancement. "His care for students and mentoring activities are legendary. He inspires us all to discover our passions and pursue them with enthusiasm and professionalism."

The Dean of Engineering, Dr. James M. Tien, thanks his colleague, Dean Brian Blake, for initiating the graduate Awards Program and congratulates Delante, Janice and Dr. Cheung (BME) on being recognized for their extraordinary talents.

STUDENTS GARNER TRAVEL GRANTS


Sen Huang


Wei Tian

Sen Huang and Wei Tian, both Ph.D. students in the Civil, Architectural and Environmental Engineering (CAE) Department, have been awarded National Science Foundation (NSF) Travel Awards and American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)/International Building Performance Simulation Association (IBPSA)Travel Scholarships. They are students of Dr. Wangda Zuo (Assistant Professor, CAE) who explained that the ASHRAE/IBPSA grant, awarded based on their research and potential in building energy simulations, allowed them to attend the ASHRAE/IBPSA Building Simulation Conference in Atlanta, Georgia this summer, where they also presented papers on their research. In addition, the NSF grants will permit them to attend the NSF Symposium on Building Energy Uncertainty and Risk Analysis at Georgia Tech in September, 2014. Dr. Zuo commented, "We are so pleased that these students' work has been recognized and rewarded. Their successes are noteworthy and we anticipate they will continue to be successful."

DR. HERMAN CHEUNG

Dr. Herman Cheung (Professor, BME) and Dr. Andrew Schally (Miller School of Medicine), along with their collaborators at the Chinese University of Hong Kong (CUHK) Eye Hospital, received a $1,250,000 donation from the Li Ka Shing Foundation.

The gift will fund a project to investigate the growth hormone-releasing hormone receptor as a potential target for the treatment of retinoblastoma (a type of ocular tumor). A total of$175,000 will be awarded directly to Dr. Cheung to support his work on the project in the Biomedical Engineering Department and at the Miami Veterans Administration Medical Center (VAMC). Another $250,000 will support Dr. Cheung's activities during his sabbatical at CUHK this fall.

The Li Ka Shing Foundation is the 8th largest foundation in the world with assets of over $8.5 billion. The University of Miami is only the third university in the U.S. to receive funds from this foundation.

64TH NOBEL LAUREATE MEETING

Veronica Fortino (Ph.D. student in BME) attended the 64th Nobel Laureate meeting in Lindau Germany in June, 2014, the first graduate student at UM to be invited and so honored. She joined over 600 qualified world-wide young researchers in this unique opportunity to meet and interact with over 30 Nobel Laureates in the fields of medicine and physiology. Veronica comments, "This was definitely a life-changing experience, not only because of the intense discussions with the Laureates, but also the networking opportunities with the other invited student participants. We formed invaluable collaborations which are significant for both our research and our professional careers." Veronica also mentioned the support and encouragement provided to her by both Dr. Herman Cheung (Professor, BME) and Dr. Helena Solo-Gabriele (Professor, CAE and Associate Dean for Research) in her application; from over 4000 applicants, only 600 invitees were chosen. "I am so honored and thrilled to have been given this opportunity. It was extraordinary."


Veronica with Nobel Laureate Dr. Ada Yonath, Nobel Prize recipient in Chemistry.

2014 NATIONAL SCIENCE FOUNDATION AWARDEE

Kimberley MacDonald (BSCAE/MSCAE '14) has been awarded a prestigious 2014 National Science Foundation (NSF) Graduate Research Fellowship based on her "outstanding abilities and accomplishments, as well as her potential to contribute to strengthening the vitality of the U.S. science and engineering enterprise." This fellowship, which will enable her to pursue graduate studies for five years at the institution of her choice, provides tuition, fees, travel allowance, and stipend. Kimberly has chosen to remain at UM, working with Dr. Giancaspro (Associate Professor, CAE) on testing and damage detection techniques for carbon and expoxy fabric composites. Dr. Antonio Nanni (Professor and Chairman, CAE) commented that "even NSF recognizes that Kim is a rising star and we are honored that she has chosen to continue her studies with CAE."

MIAMI engineer

ENGINEERS WITHOUT BORDERS HELPING HAND CONTINUES

The College's Engineers Without Borders (EWB) organization, with the ultimate goal of implementing a comprehensive sewage system for the community of Las Mercedes in Huaquillas, Ecuador, completed several key steps this summer.

EWB team members from the College spent two weeks, May 10 – 24, 2014, working with the local Non-Governmental Organization (NGO) partners Dana Rasch and Edward Duarte, surveying the village's homes for eventual connection to the newly-built primary and secondary sewage lines, as well as teaching the community how to maintain the new systems. The team succeeded in surveying 178 of the 286 dwellings, and also created a distribution system for the donated sewage supplies .

"This project is so rewarding and such an educational opportunity for us all," commented Natasha Koermer (CAE'16), president of the College of Engineering's EWB chapter and the health and safety leader for this summer's trip. She points out that almost all the homes in the community have been connected to the primary sewage lines by August, 2014, thus ensuring safer water supplies for all inhabitants. Miguel Amezcua, who has been working on this project for the past two summers, agrees that the opportunity to apply engineering concepts to real-world problems is both challenging and extremely valuable.

The EWB members participating this summer are: Joseph Ray (BME'16), Laurent Etienne (CAE'15), Raul Velarde (CAE'14), Natasha Koermer (CAE'16), Michelle Stanley (CAE'17), Jessica Chabot (IE'17), Francisco Noyola (IE'15), Jared Moljo (Physics'15), Ricardo Palacios (MAE'16), Miguel Amezcua (CAE'15), Josh Lomot (IE'17), and Michael Bernard (MAE'15).

Supervision has been provided by Dr. Diego Deleon, Faculty Mentor, and Enrique Ortega, Professional Mentor.

The entire EWB team worked extremely hard on this phase of the on-going project. From l to r, in the front row, kneeling are: Dana Rasch (NGO partner), Jessica Chabot, Natasha Koermer, Miguel Amezcua, and Jared Moljo. Back row, l to r, are Michelle Stanley, Raul Velarde, Joey Ray, Francisco Noyola, Josh Lomot, Ricardo Palacios, Laurent Etienne, Michael Bernard.

Class Notes

Mark Agate, BSMAE'14. Working in the NASA Reduced Gravity Education Flight Program.

Joshua Allbee, BSMAE'11. Working at Siemens Energy in Orlando, FL as a Thermal Systems Engineer II, after working for Siemens Industry in Norfolk, VA for three years.

Alejandro Arboleda, BSBME'14, MSBME'14. A recipient of a 2014-2015 U.S. Fulbright Fellowship; going to Paris, France to continue research using photodynamic therapy for the treatment of infectious keratitis; this work at the Centre de Recherche de Cordeliers continues the collaborative effort between the Ophthalmic Biophysics Center at Bascom Palmer Eye Institute in Miami and the INSERM Equipe 17 in Paris.

Agustin Arias, MSIE'78, MBA'78. Chief Engineering Advisor for the City of Panama; responsible for planning, coordinating and monitoring the execution of the Line 1 project, as well as for planning Lines 2 and 3 of Panama's Metro and the fourth Bridge over the Panama Canal; worked for over 26 years at the Panama Canal as Director of Engineering and Projects, leading the engineering team that studied and planned the Panama Canal Expansion Project.

Raul Arrondo, BSECE'73. Developed the first Independent Power Producer enterprise to receive a Power Purchase Agreement in Latin America in 1992, the 110 Megawatt Puerto Quetzal Power Corp. in Guatemala; former Director of the Electrical Generation Systems Association and Chairman of the International Trade Committee.

Michael Berliner, BSMAE'11. Worked as an Accenture Strategy Analyst 2012-2014; currently working with Bazaarvoice as a Strategic Consultant.

Michael Botwin, BSMAE'62, MSCE and Ph.D. at Rensselaer Polytechnic Institute '68. Retired from teaching Architectural Engineering at Cal Poly/San Luis Obispo; avocation: teaching through extension programs since 1996; visited over 45 countries (always wine related).

Jesse Bryant, BSBME'12. MSBME'14, Texas A&M University; Currently working with Penumbra, Inc., as a Quality Engineer.

Carlos Carbollosa, BSBME'10, MSBME'12. Recently authored two publications on nicotine and its effects on the adult stem cell regenerative potential and the musculoskeletal system.

Marcel Carrara, BSMAE'51. WWII veteran (1943-1946), who served in the Philippines and Japan; trained as flight engineer on B-24's (liberators) and C-54's (sky-masters); attended the U on GI Bill in 1949; worked on a Hurricane Project with Dr. H. Sheldon, featured in the Miami Herald; as a Project Engineer for General Electric, received several patents; retired in 1985 and became a teacher at Hudson Valley Community College.

Kelsey Chin-Sim, BSMAE'11. Completed a technical internship as a manufacturing engineer at Propulsion Technologies International in Miramar, FL; moved to Massachusetts and worked at United Technologies Corporation in the fire suppression division for two years; now working with Boeing Defense and Space as a Supplier Quality Engineer working on electronics, electromechanical units, and mechanical parts for defense and space programs.

Alp Cilingir, MSMAE'09. Currently working with NETAS as a Strategic Marketing and Business Development Expert.

Diana Cortes, BSECE'01, MSECE'03. Joined Google in 2013; working on designing next generation corporate network solutions.

Rob De La Espriella, BSCAE'83. 1982-1987 – U.S .Navy; 1988-1992 – Turkey Point Nuclear Plant; 1992-1996 – U.S. Nuclear Regulatory Commission; 1996-2006 – St. Lucie Nuclear Plant; 2006-Present – President, DLE Technical Services; daughter, Rebeca, attends Princeton (currently a sophomore); son, Robby, attends high school.

Anthony Dorsey, BSIE'13. Working on Dual MBA/MSIE online programs; pursing Black Belt.

Donnielle Ebrahimi (Toebe), BSCAE'08. Recently obtained PE license; moved from Kimley-Horn & Associates to Craven-Thompson & Associates.

Christopher Garrido, BSECE'02, MSECE'05. Now working on the voice and video parts of FaceTime application for Apple, Inc.; he and his wife are currently expecting their first children, twin boy and girl, in late November 2014.

George Generalis, MSMAE'96, Ph.D. in IE'00. Working in retail expansion for over 15 years now in senior management positions, with McDonald's, GRUPO INDITEX, and MANGO (Punto Fa).

Scott Joseph, BSECE'10. Now working at Google as Technical Lead Software Engineer of an ad team, specializing in front end reporting applications; continuing as a NSBE member, and was recruited by Google at the NSBE National Convention twice.

MIAMI engineer
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Lawrence Kagemann, MSBME'89. Ph.D. in Bioengineering '12, the University of Pittsburgh. Promoted to Associate Professor in 2014 at the University of Pittsburgh; primary appointment in Ophthalmology at the University of Pittsburgh's School of Medicine and secondary appointment in Bioengineering at the University of Pittsburgh's Swanson School of Engineering.

David Kajdi, BSMAE'93. Employed at GE Power & Water for seven years; currently leading all Heavy Duty Gas Turbine Product Structuring for existing and new product lines as the Engineering Technical Leader; resides in Greenville, SC, with wife Kimberly; welcomed a beautiful daughter to the family in 2013.

Harish Kapoor, MSBME'86. Developing new strategies and disruptive approaches for diabetes, which includes Wellness Machines to provide therapeutics for diabetes and obesity; Founder/Director of Quantum Therapeutics in Fort Lauderdale, FL.

Kristen Khoury, MSBME'13. Worked for Goode, a client medical device company in Chicago; in 2014, begin the Quality Regulatory Leadership Program (QRLP) with GE Healthcare in Wisconsin, a two year rotational program focused on several parts of the quality system and regulatory affairs of GE's medical devices.

Alan Knitowski, BSIE'91. MSIE'92, Georgia Institute of Technology. MBA'99, University of California – Berkley. A Central Texas Finalist for the 2014 EY Entrepreneur of the Year competition; his company, Phunware, was selected for the second consecutive year as both an Austin Business Journal Fast 50 Top Company award recipient in Central Texas and a Top 100 Company award recipient for the Inc. 500 list of the fastest growing companies in the United States.

Matthew Kostrab, BSMAE'08. Celebrating six years at Siemens, four as a project manager; obtained Project Management Professional certification through PMI in February 2013.

Wyatt D. Krapf, BSCAE'14, MSCAE'14. Real estate analyst at HFF in Miami; performs valuations, marketing analysis, and underwrites deals.

Dennis Lamm, BSECE'87. Responsible for technology risk oversight for Fidelity Investments' customer interface; also oversees technology risks at offshore sites as well.

Tony Locrotondo, BSBME'11. Division 2 national champion with Rocky Gorge Rugby Club.

Guillermo Lopez, BSECE'89, MD'95. Founding member of South Florida's first physician-owned primary care group.

Caitlin Lundell, BSCAE'14, MSCAE'14. Currently working with Wiss, Janney, Elstner Associates, Inc., as an Associate Engineer.

Anthony Marchese, BSCAE'97. Experienced in both engineering and Agency CM deliveries, with EPC experience in high-tech facility deliveries in the federal, defense, education, mission critical, semiconductor, life sciences, and entertainment industries.

Manuel Mere, BSECE'66, MSECE'67. Retired after 44 years in the semiconductor industry.

James Mullaly, BSBME'06. Recently promoted to Associate Manager, Supplier Quality Engineering, with NuVasive, an innovative global medical device company offering spinal surgery with minimal disruptive surgical products.

Robert Newman, BSECE'54. Retired after working 21 years with defense contractors, in the ICBM area and 25 years in the credit card industry, with American Express and MasterCard, specializing in data analysis and bank interchange rates and compliance.

Maha Nolasco, BSBME'02. Both he and his spouse are UM graduates; worked at Cordis Corporation, a Johnson and Johnson company, in Miami Lakes, FL, in Research & Development and Regulatory Affairs for nine years; recently moved to Chicago to pursue job opportunities in the healthcare industry.

Rachel Papeika, BSBME'05, J.D.'08, MSOES'09. Relocated to the DC area four years ago to work at the US Patent and Trademark Office; recently promoted to GS13, and begins the Patent Examiner Signatory Program in 2014; active in the DC Alumni club; since relocating, was elected President of the DC Canes in May; looking forward to another great football season and year of alumni events.

Andreas Pashos, BSMAE'12. After graduation, flight performance analyst in Wichita, KS for Scorpion Jet; in 2013, relocated to Boston, MA to work as a manufacturing and process engineer on the heat shield for NASA's Orion Multi-Purpose Crew Vehicle; recently relocated to New Orleans, LA, as a liaison engineer for the Ship-to-Shore Connector program, the next generation Landing Craft Air Cushion (hovercraft) vehicle for the Navy.

Jorge Pino, BSIE'69, MBA'72. Worked in the airline industry for over 25 years (mostly at Eastern); recently joined State Street Realty, an award-winning boutique real estate brokerage firm. Go Canes!

Matthew Pollard, BSCAE'12. Currently pursuing a Ph.D. in the Energy, Environmental, and Chemical Engineering Department at Washington University in St. Louis, working on co-firing PRB coal with oak wood biomass.

Sabina Rakhimbekova, BSCAE'14. Currently working with Bouygues Civil Works Florida as a Quality Intern; involved in Chi Epsilon, NSCS, FWEA, ASCE, AWWA, and WEF.

Geoffrey Roberts, Jr., BSCAE'82. Currently at Synagro Technologies as the Chairman of the Board.

Kevin Schwartz, BSCAE'12, MSCAE'13. Currently working with EBI Consulting as a Project Engineer.

Nicolas Sincaglia, BSECE'95. Founded TuneTo.com Inc. in 1998, and sold it to Listen.com in 2001; headed the digital content operations team at AOL Music; now Board Member of Digital Data Exchange (DDEX); published and presented three papers for the Audio Engineering Society (AES); founded NueMeta LLC in 2007; awarded two patents in 2010.

Richard Stehle, BSMAE'09. MSME'11 and Ph.D. in ME'13, the University of Florida. Currently a visiting lecturer at the University of Florida.

Enrique Suarez, BSMAE'71. President of HNGS Consulting Engineers; past President of UM College of Engineering Alumni Association; past President of ASME Miami Chapter, Professional Engineer in Florida and Puerto Rico; designed the mDr. Herman Cheung (Professor, BME) and Dr. Andrew Schally(Miller School of Medicine), along withechanical systems for multiple high-rise buildings in South Florida, including the Four Seasons Hotel, the tallest building in Florida.

Rob Weaver, BSMAE'08, J.D.'11. Elected as the Vice President for the UM College of Engineering Alumni Association for 2014-2015.

Matthew Ziff (BS/MS IE'14) . veteran actor, writer, and producer was recently featured in the Exxon Mobil ad "Be an Engineer." This national spot is in addition to his most recent films,