

INDUSTRIAL & SYSTEMS ENGINEERING

I S E N E W S

SPRING 2012

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YOUNG ALUMNI RETURN TO GAINESVILLE TO NETWORK

UF | UNIVERSITY *of* FLORIDA

CHAIRMAN'S COLUMN



Dear Alumni and Friends,

There is a buzz in the Department – we were just named to the Top 10 of graduate programs in the country by U.S. News and World Report. We are both humbled and excited to be recognized by our peers, as this is the highest ranking we have ever received. I believe it is highly reflective of the tremendous programs we deliver, research our faculty and students produce, and accomplishments of our alumni. Congratulations to all of you!

Our growing reputation also seems to be growing our enrollments. Officially, our spring undergraduate enrollment is 565 undergraduate students – by far the highest number we have had in recent memory. We also have nearly 200 master's students and 50 Ph.D. students in our program.

Fortunately, we are in the middle of a faculty search to help with the increasing load.

I have been asked numerous times as to why our enrollments are skyrocketing. (To put it in perspective, we had just over 400 undergraduates in our program in the fall of 2008.) There are plenty of good answers – we have great degree programs that are in high demand by employers – is probably at the top of the list. We graduated 22 B.S. students and 28 M.S./M.E. students this past December. The undergraduates continue to have success in the job market, with 65% landing jobs while another 25% were headed to graduate school (of the 20 that responded to our survey). Employers included Accenture, Amazon, ExxonMobil, GE, Shands Hospital and Texas Instruments.

With this, we continue to add to our formidable group of alumni. As we are well over 5000 strong, we have often wondered how to keep our alumni involved with the Department. Well over a year ago, I polled a number of young alumni that were back on campus as to what they wanted from the Department. They were clear in that they wanted networking opportunities – especially with other alumni that have been successful.

So we responded. We've had a number of social networking events across the state this past year and in early February, we hosted a Career Development Symposium. My thanks go out to Linda Hudson of BAE Systems and Bill Muir, Jr., of Jabil for serving as keynote speakers. I would also like to thank Steve Chastain, Carlos del Sol, Scott Figura, Hunter Jones, Roger Madariaga, Consuela Smith, Eric Stern, Kevin Teehan, and David Wright of our advisory board for serving as panelists. Between the panel discussions and the keynotes, the roughly 50 alumni (mixed with

a few students) in attendance received a lot of good advice for advancing through their careers. The talks and discussions are summarized later in this newsletter.

This event, which took place on a Saturday, spilled into Sunday with many of the young alumni staying to network with students in our IIE Student Chapter. IIE recently started a mentoring program, with the support of Procter & Gamble, in order to help our newer students get acclimated to the Department and all that we have to offer. This weekend helped extend this relationship from newer students to older students to young alumni. We hope to continue to seek out these opportunities to connect our students with alumni, so if you are interested, be on the lookout for calls for volunteers or just let us know that you are interested. The hope is to provide connections between students and alumni and then get these groups together once a year (like we did this year, although in smaller numbers). As nearly 400 of our alumni have joined our LinkedIn group, we know that many of you are interested in networking.

In the fall, we showed off a number of new renovations in the Department. This spring, we opened a dual purpose Senior Design Laboratory and Student Organization Office. As our senior design projects continue to grow in complexity, we realized that our students needed access to higher end software for simulation and optimization routines. This lab provides this capability along with some needed meeting space. The renovation also afforded the opportunity for our student organizations (APM, IIE, INFORMS, and Ambassadors) to have a home for their belongings as well as some nicer meeting space. I am sure that over time, this will become the new student lounge. And for those of you that can recall, the soon to be "old" student lounge will be renovated next. We thank Procter & Gamble, Rockwell Collins, and Walt Disney World Parks & Resorts for making these renovations possible.

As always, drop me a note if you have an update or are interested in addressing our students in class or another setting. I hope to get on the road a bit more this summer and meet more of you. If you are interesting in talking, please reach out (352-392-1464, hartman@ise.ufl.edu)!

GO GATORS!

Sincerely,

A handwritten signature in black ink, appearing to read "J. C. Hartman".

Joseph C. Hartman
Professor and Chair

FACULTY UPDATES



Ravi Ahuja

Elif Akçalı

Sherman Bai

Ravi Ahuja continues to grow his company Innovative Scheduling. He has well over 30 employees and hopes to double the size of the business this year.

Elif Akçalı returned from her visit to Özyegin University in Istanbul, Turkey. She is teaching production and supply chain courses at the undergraduate and graduate levels.

Sherman Bai continues to build partnerships with Zhengzhou University in Henan, China, with hopes of developing a study abroad program for next year.

Vladimir Boginski recently received an extension of his Young Investigator Award from DTRA through 2013. This project will continue to analyze robustness and attack tolerance of complex networks. He is also actively collaborating with the Air Force Research Laboratory at Eglin AFB on a variety of projects.

Joe Geunes is publishing a book in the Springer Briefs Series on Optimization called *Demand Flexibility in Supply Chain Planning*. He also has two papers forthcoming in *Mathematical Programming*.

Yongpei Guan continues to direct the Computational and Stochastic Optimization Lab with funding from the Department of Energy and Office of Naval Research.

Joe Hartman has been named Chair of CIEADH, the Council of Industrial Engineering Academic Department Heads.

Serdar Kirli continues to teach the programming and decision-support systems sequence in the department in addition to leading an IPPD project sponsored by Gainesville Regional Utilities.

Guanghui (George) Lan delivered an invited seminar entitled "Bundle-type methods uniformly optimal for smooth and nonsmooth convex optimization" at Polytechnique Montréal, Canada.

Peter Momcilovic has revamped the Matrices and Numerical Methods course in the Department while advising senior design projects with the Navy Medical Group in Jacksonville.

Toi Lawphongpanich and Yafeng Yin's poster titled "Nonlinear Road Pricing: Tolling to Achieve Multiple Objectives" won the Best Poster Award at the Transportation & Expressway Authority Membership of Florida (TEAMFL) Conference held at the Marriott Sawgrass Resort this past fall.

Panos Pardalos recently hosted two conferences in Gainesville involving dynamics of information systems and computational biomedicine. He also published the monograph *Mathematical Aspects of Network Routing Optimization*, with Carlos Oliveira, and edited two volumes of the *Handbook of Optimization in Complex Networks* with My T. Thai.

Jean-Philippe Richard has parlayed his work with CSX Transportation into a new National Science Foundation grant to further explore routing in rail networks.

J. Cole Smith has been named Editor-in-Chief of the *TutORials in Operations Research* book series, published by INFORMS. Dr. Smith was the first Volume Editor in this series, based on tutorials given in the 2005 INFORMS National Meeting. Dr. Smith continues to serve on many editorial boards, including *Operations Research* and *IIE Transactions*.

R. Keith Stanfill is on the organizing committee of the third biannual Capstone Design Conference (www.capstoneconf.org) to be held May 30th in Urbana-Champaign, IL. Dr. Stanfill is eager to connect with ISE alumni interested in solving specific engineering design challenges through the successful Integrated Product and Process Design (IPPD) program at UF. See <http://www.ippd.ufl.edu> for more information.

Suleyman Tufekçi is leading IPPD projects with General Dynamics and senior design projects with Northrop Grumman and Raytheon.

Stan Uryasev completed "The Fundamental Risk Quadrangle in Risk Management, Optimization, and Statistical Estimation" with **R. Tyrrell Rockafellar**. Dr. Uryasev believes that this paper will have tremendous impact on the field.



Vladimir Boginski

Joe Geunes

Yongpei Guan



Joe Hartman

Serdar Kirli

Guanghui (George) Lan



Peter Momcilovic

Toi Lawphongpanich

Panos Pardalos



Jean-Philippe Richard

J. Cole Smith

R. Keith Stanfill



Suleyman Tufekçi

Stan Uryasev



GILLETT INSPIRED AND INSPIRING FUTURE ENGINEERS

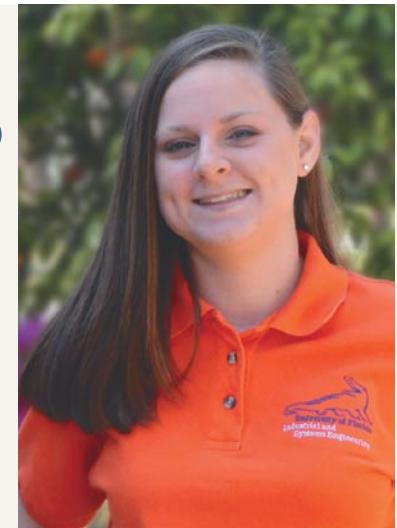
"I fell in love with ISE in our Introduction to Engineering course, where students preview each discipline throughout the semester," recalled ISE fifth-year senior Elizabeth Gillett. "I was drawn to the process improvement aspects and the idea that nothing is perfect but everything can be made better."

She has been working hard to make things better – both in and out of the Department. In the Department, she is actively involved in the Institute of Industrial Engineers (IIE), Alpha Pi Mu (APM) and now, ISE Ambassadors. As President of APM, she dramatically increased the activity level of the group – from providing mentoring and tutoring to younger engineering students to advising help for ISE students. She is also heavily involved in the IIE mentor/mentee program intended to get ISE students involved in the Department early in their academic careers. This work led to her winning an "Attribute of a Gator Engineer Recognition Award" from the College of Engineering for Integrity.

"Every step along this journey reconfirms my decision to pursue ISE," said Gillett. "ISE's are savvy businessmen who garner the technical expertise of engineers; the best of both worlds in one!"

She has also been making a difference in the Aerospace/Defense industry, with internships in each of her past three semesters. This past summer, she improved processes as a Quality Control Intern for General Electric Aviation at their plant in Jacksonville, FL. Previously, she interned at PALL Aeropower Corporation in New Port Richey as a Manufacturing Engineering Intern and at GE Transportation as a Wireless Technology Marketing Intern.

Despite all of the summer "work", she managed to squeeze in a two-week study abroad program in Costa Rica focused on green energy. "It further develops concepts mentioned in Energy Management, but delves into renewable and sustainable energy portions much more thoroughly," she explained. In addition to classroom material, the students (from all over the country) took



five site visits and four sustainable energy tours. "My international excursion has heightened my inclination to explore companies abroad and to continue traveling," she said.

Next summer, she plans to return to the defense industry with an internship through BAE Systems. This was facilitated through her participation in the National Math and Science Young Leaders Program, which introduced her to ISE alumnus and Hall of Famer Linda Hudson, the CEO of BAE Systems. The National Math and Science Young Leaders Program is a collaboration between the National Math and Science Initiative, ExxonMobil and FORTUNE that addresses women being left behind in the critical fields of math and science. It introduces college junior females majoring in STEM (Science, Technology, Engineering, and Math) fields to female executives at FORTUNE 500 companies.

Through this program, Gillett has participated in monthly webinars, a three-day conference in New York City, and a plant tour with Hudson. "This entire six-month experience has been inspirational," reflected Gillett. "I found role models I'll forever remember."

"Developing a relationship with Linda Hudson and her staff has been an experience of a lifetime for which I'm eternally grateful," continued Gillett. "She's down to earth, yet a strong business woman with deep southern roots, and one of the biggest Gator Fans you'll ever meet!"

In addition to the inspirational career advice, Gillett has learned the importance of paying it forward through this experience. This has motivated her to join ISE Ambassadors and be instrumental in assisting, in her words, "other students in finding their passion in engineering," through the Introduction to Engineering course. And she will continue to inspire those in ISE for awhile, as she intends to complete her master's degree before heading into the corporate world, most likely aerospace or defense.

symposium on career development

It was February of 2011 when a number of young alumni were back on campus helping the Student Chapter of the Institute of Industrial Engineers put on the IIE Southeast Regional Student Conference. At the time, Dr. Joseph Hartman, Chair of ISE, sat down with the attending alumni to get their feedback concerning involvement in the Department. "I asked them what they wanted from their Department," said Hartman. "I wanted to know how we could keep them involved."

Among the many ideas, the alumni wanted the opportunity to network with other alumni, especially those that have been successful and would be willing to share insights and advice. Thus, the "Symposium on Career Development" was born.

Starting with breakfast at 7:30 a.m. on February 4, a number of alumni and some students arrived at the University Hilton to partake in the festivities. Linda Hudson (BS SE 1972) opened the symposium with a keynote while William Muir, Jr. (BS ISE 1992) closed the event over lunch. Between the two talks, two panel discussions were held with nine members of the Industrial Advisory Board, eight of which are ISE alumni (and all are Gator Engineering alumni). The talks and panel discussions are summarized in the following section.

Of course, it wasn't all work and no play. A number of alumni made it to campus early for a reception on Friday night and

stayed after the Symposium for the men's basketball team's victory over Vanderbilt.

Here is what a few attendees had to say about the Symposium:

"The experience was invaluable. In the same breath we were networking with our peers and our esteemed alumni. We all have so much to learn from one another and this created an outstanding forum. Our growth from events like this helps us as individuals and professionals and thereby helping the Gator Nation continue to exceed expectations in the workplace." – Kathryn Blackwell (BS ISE 2009), Procter and Gamble.

"The amount of talent and credibility in that room speaks to the excellent education UF has given us. Being exposed to each of their stories gave me incredible insight on what it takes to elevate myself to those career levels. I thoroughly enjoyed this event, and I will undoubtedly see myself back here for another one." – Daniel Arvesu (BS ISE 2009), Cameron International.

"It is amazing the caliber of alumni that our department has produced and I can only hope that I, and my peers, can continue the tradition of success over the next 30 years of our careers. Hearing what these people have accomplished just makes me so excited about what could be in the cards for my future too." – Jessica Hinkle (BS ISE 2009), Harris Corporation.

"The symposium was a wonderful event that allowed young alumni to rekindle old friendships and make new connections with senior leaders in industry. The advice we received is already having an impact -- shaping us into the future leaders of tomorrow. I hope that the young alumni of today will be sitting on those panels giving advice to future generations to come." – Natalie Keller (BS ISE 2010), The Nielsen Company.

"The symposium totally exceeded my expectations! The panelists were both varied in their backgrounds as well as insightful in their discussions. I can't wait to see what's lined-up for next year." – Guillermo Moratorio (BS ISE 2008), Next Generation Construction.



Left to Right: Uzair Malik, Steve Chastain, Nick Parsons, Clayton Blackwell and Andres Thomas



HUDSON OUTLINES FIVE LESSONS FOR NAVIGATING A CAREER

It seemed appropriate that the Symposium on Career Development would be opened by Linda Hudson, President and CEO of BAE Systems, Inc. But the 1971 ISE graduate made a confession at the beginning of her talk. "I never dreamed of becoming the CEO of a big company," said Hudson. "I never dreamed of becoming the CEO of a small company. I never dreamed of becoming a CEO, period. Girls in the 50's and 60's had no such dreams."

Growing up in Leesburg, Florida, Hudson dreamed about planes and rockets. "I dreamed first of being a pilot, and once the space program began, an astronaut," she confessed. "I loved all things about airplanes and rockets, and I desperately wanted to fly." Ever the pragmatist, she realized that she would not fly planes or space ships, as those duties were restricted to men in those days. So she set her sights on designing them.

After graduating, with her B.S. in Systems Engineering (with honors) she did just that, working on the B-1 bomber. From there, her career literally took off. "But even then, little did I know that one day I would become the first female CEO in the male-dominated defense and aerospace industry," said Hudson. "I just wanted to be the best engineer I could be. I discovered if I did my job better than anyone had ever done it before, my bosses would overlook the fact that I was female."

And she did outperform them. She has held a variety of senior management positions in engineering, production operations, program management and business development in the defense industry. She began her career with the Harris Corporation and Ford Aerospace. She served for seven years as an Officer and Vice President of the General Dynamics Corporation, and was President of General Dynamics Armament and Technical Products in Charlotte, North Carolina. Prior to her current role, Hudson was president of BAE Systems' Land & Armaments operating group, a role she began in January 2007. Land & Armaments is the world's largest military vehicle and equipment business, with operations around the world.

Despite the continued movement upward in her career, Hudson said there were times when she felt stuck. She encouraged others to "look for opportunities to get on high visibility projects," in order to get off a plateau.

And when one lands a managerial role, she urged them to "be clear about expectations and be there when they need help." The key is to have an open dialogue, and "don't have too many absolutes," she said. She admitted that she is fortunate to work in an industry where people are highly motivated because they have pride in what they do.

In her opening keynote, Hudson shared five lessons with the audience to help them through their careers, highlighted here.

1. Focus on performance. "Control what you can control," said Hudson. "Deliver results. Be excellent at what you do. Excellence will overcome adversity ... eventually." In doing these, she stressed doing so within the environment that you work, leading to her next lesson.

2. You need to be willing to "play the game." "Corporate cultures have their own rules," said Hudson. "Learn to operate within them. When you don't have authority, it's very important that you learn to persuade and influence others. That's how you get things done." And she went on to say it is about building relationships and trust, and learning to fit in. "Fitting in does not mean changing who you are," she explained. "It does involve a degree of respect for who the company is and what it stands for."

3. Don't neglect the so-called "soft skills." "Never underestimate the importance of communication and people skills," said Hudson, "and the impact they can have on your career. Your ideas are worth nothing if you cannot effectively communicate them." She suggested courses in writing, public speaking and etiquette, along with reading more. "In the workplace you have to communicate in more than 140 characters," she summarized to a chuckling crowd.

4. Be flexible. Hudson urged the attendees to be open-minded about new jobs and roles in the workplace, even if it put them outside of their comfort zone. "I have seen a lot of extremely talented people with immense potential limit themselves by being unwilling to consider life-changing and career-building opportunities that happen to fall outside their immediate area of expertise," she said. "My willingness to be flexible has opened doors to opportunities I could never have imagined."

5. Be honest with yourself. "Just because you love being an Industrial or Systems Engineer doesn't mean you'll love being a Vice President of Engineering," explained Hudson. "It may seem like a natural career path to move into leadership, but don't just assume that it is a career you want to pursue." She suggested testing the waters with a special assignment as a project lead in order to see if that is a potential career path. The key, to Hudson, is to "figure out what your passion is and never lose sight of it. It is that passion that will give you the energy to persist and succeed during the tough times, whichever path you choose."

Four years after graduating, Hudson faced the decision of going into management as a Reliability Engineer or staying in a technical role and joining a prestigious laboratory. "I realized then that I loved leading teams and making things happen," said Hudson, "so I took the management job and never looked back."

Reflecting on her career, Hudson said that being a Program Manager was her favorite role, as she could see a project from end to end. In her current role, she admitted that she is removed from "the real work," as she oversees 40,000 employees. "In the end, the engineer in me is still there."

panel discussions



Left to Right: Kevin Teehan, Steve Chastain, Hunter Jones, Roger Madariaga, Dr. Joseph Hartman

Linda Hudson's opening keynote was followed by two panel discussions. The first was centered around internal issues with regard to career development, such as further education and training, mentoring and networking. The second panel focused on external issues, including changing jobs, companies and industries.

The first panel consisted of the following members:

Carlos del Sol: Retired in 2011 as Vice President of Global Engineering Systems at the Campbell's Soup Company in Camden, NJ. Upon graduation from UF with a BS IE degree in 1972, he joined General Electric's two-year Manufacturing Management Program. He moved in 1988 to Campbell's as Director of Advanced Engineering Systems and then Group Director of Engineering Systems.

In his opening remarks, del Sol told the audience to think of their careers as pyramids. Through different assignments, you build a base, and then you add to that base. "You need to develop a career path," he said. "You have to think about what you want to do and how you get there." In doing so, he stressed being flexible, over-delivering and working with honesty and integrity.

Scott Figura: Global Director of Supply Chain Capability Development for the Coca-Cola Company, located in Atlanta, GA. Prior to his current position, he held the position of Vice President of Supply Chain Technical Services with Coca-Cola Enterprises, the bottling company. He graduated from UF with a BS ISE degree in 1983.

In his opening remarks, Figura told the attendees to "work yourself out of a job" in order to promote your career. He stressed that it is about being passionate about the opportunities that are presented to you. He put this in the context of his new role in developing the next generation of leaders in supply chain management at Coca-Cola.

Consuela Smith: Network Systems Engineer with the Harris Corporation in Melbourne, FL. She holds an MS ISE and an MBA from UF graduating through the OEM program in 2011. She has also held various positions with the Harris Corporation such as Project Engineer, Network Communications Integrated Product Team Leader, and Network Planning Engineer. She holds an undergraduate degree in Electrical Engineering from Florida A&M.

Smith questioned her abilities early in her career, especially after she was laid off from Ericsson and later while she was raising a growing family. Now with graduate school credentials and experience, she is willing to take on the risks of new assignments. "It starts with you," she said. "Take on those opportunities."

Eric Stern: Senior Director of Operations for Rockwell Collins in Melbourne, FL. He graduated from UF in 1983 with a BS ISE degree and returned to receive his ME ISE degree through the OEM program in 2009.

Stern opened with the key to success: performance and getting results. That said, he stressed that one should be a "good" employee. "Whatever you are asked to do, just say yes," he said while conveying a story of when he had to analyze and fix a problem with the

septic system in a plant early in his career. He admitted it was a dirty job, but noted how he earned the respect of his fellow employees and managers with his dedication.

David Wright: Engineering Leader, Service Delivery of The Nielsen Company in Tampa, FL. Prior to his employment with Nielsen, Mr. Wright worked for United Technologies in various positions in software development and engineering research. He graduated from UF with a BS in Computer Engineering in 1987.

In his opening remarks, Wright noted that he got into management because he realized that in order for projects to be completed successfully, they required a lot of people and talent. "You have to take advantage of every opportunity that comes your way," he said. He further added to "learn in everything you do."

After the opening remarks, the floor was opened for questioning. One question dealt with working for a small company and determining when to move on. In response, Stern noted that big companies are nothing more than groups of small teams. "Work to make the company bigger," said Wright. In regards to leaving a company, he further suggested that you should not "talk about it until you are really going to do it." And then be prepared to leave, added Figura, noting that "people join companies and quit bosses."

Another question focused on developing soft skills. Stern humorously noted that today's students and early graduates are far better than previous generations. Figura summarized that "you need to work on your tolerance for ambiguity," recalling one of his first assignments with a tough customer and how hard he had to work on selling his solution, which he assumed would be accepted as the best. "Get into those situations and fail once or twice," echoed Wright. Del Sol noted the benefit of walking around and talking to people, with a key emphasis on treating people with respect. Smith stressed practice and knowing your audience.

As Linda Hudson had stressed a work life balance, another question focused on how to become a successful "person." Del Sol noted that this is critical, as companies are "looking for people who are well rounded." All the panelists suggested ways in which to broaden horizons through family and hobbies. Smith urged those in attendance to get involved with the community. Wright was direct: "Be open to learning about new stuff."



Panel Members: Left to Right: Consuela Smith, Eric Stern, David Wright

The final question from the audience focused on being a leader and helping others. Many suggested MBWA, or management by walking around and talking to people, and also taking time to work with and develop direct reports. Stern stressed three points: (1) taking ownership of your work; (2) have a sense of urgency such that you are focused; and (3) be open.

The second panel consisted of the following members:

Steve Chastain: Owner of Chastain Energy LLC, an Energy Infrastructure Engineering and Financial Advisory Firm that co-invests with Private Equity and Infrastructure Funds in Power Generation, Electric Transmission, Gas up-stream Exploration & Production, mid-stream Pipeline, and Renewables projects. He formerly worked with URS Corporation, IBM, Deloitte & Touche, and FP&L after obtaining a BS ISE from UF in 1986.

Chastain noted that there are many considerations when considering a career, including friends and family, a social life, health and finances. He urged the attendees to seize opportunities in order "to make your career." Furthermore, "translate your own career into your own passions," he said.

Hunter Jones: Vice President and Chief Information Officer with Cameron, located in Houston, Texas. He graduated in 1980 with a BS IE degree from UF. Prior to his current position, he held the position of Vice President of Operations with Cameron. He previously held management positions with General Electric.

Jones made a number of points in his opening remarks. He stressed staying in touch with the network as there are people "out there" that can help. He also suggested being direct with your boss and tell them the next job you want. He noted how this will actually make your boss' job easier in the future. Finally, he commented on leaving a job or a company. "Make sure you are moving to something," he said, "not moving away from something."

Roger Madariaga: Principle Consultant at Madariaga & Associates, LLC in Raleigh-Durham, NC. He previously held various positions in the automotive and information systems industries, such as VP of Information Systems and Program Management, Business Process Consultant and Industrial Engineer with companies such as GKN Driveline and E.I. Dupont de Nemours. He graduated from UF in 1973 with a BS in Systems Engineering.

Madariaga used his opening remarks to relate how he was, upon graduation, an engineer that had trouble working with people. It was through his experience as a Boy Scout leader that he

honed his soft skills and ability to negotiate, which ultimately led to his rise from Engineer to Director.

Kevin Teehan: Vice President of Supply Chain at HID Global, an electronic manufacturing company located in Chicago, IL. He has extensive experience with Motorola and has held positions such as Manager, Senior Operations Manager, and Director. Mr. Teehan graduated from UF in 1988 with a BS ISE degree.

"We all have the same amount of time," noted Teehan in his opening remarks. "But it's the energy you bring that separates you from your peers." He further noted that you have to determine what motivates you so you have that energy.

The opening question from the audience centered on how to choose to accept an assignment. "Don't let the 'I don't know' be a barrier," with regards to new assignments said Jones. "You want to go to a job that stretches you." Madariaga and Chastain noted that if you are being asked for a new assignment, there is most likely a reason. "It may not be the thing you want to do, but listen carefully," said Madariaga. "Somebody sees something and may want you to grow." Furthermore, they may not ask again. "I don't think I ever said no," concluded Teehan.

The next question concerned changing industries and moving. "Expand on those transferrable skills," said Teehan and become a "leveragable asset" said Chastain. Jones stressed that companies are looking for people to lead and perform, and have an ability to learn. Madariaga summarized that you need to "absorb the context of your industry and then apply (your) general skills. Something may change and you have to adapt."

Another question asked how to deal with factors outside of one's control. Chastain noted that "engineering can be a curse," to laughs from the audience, as we often formulate our life (maximize joy subject to constraints). "Be proud of the fact that you are an engineer," he said. "You have everything you need to meet those challenges." Madariaga added that "total control is a mirage. You have to have a sense of trust and make adjustments as you go." He also stressed the need to be coachable.

The panel concluded with a question about becoming a leader. Chastain noted that he wanted to become president of the company. "I didn't realize how naïve I was," he said, "and how much I had to learn about the business." He went on to note that "the core business is really about people." Jones learned to ask about those that worked for him: "What can I do to make them more successful?" Teehan summarized his approach from the start: "My plan on day one was to learn."



Muir's Advises Attendees to Latch onto a Winner

William Muir, Jr., Executive Vice President and Chief Executive Officer of Global Manufacturing Services at Jabil in St. Petersburg, brought the Career Development Symposium to a close with the final keynote of the event. He provided background on Jabil, a major contract manufacturer that often goes unnoticed as nearly all of its products are inside other products, in order to make his point: "Tying yourself to corporations that are growing creates successful opportunities," he said.

Jabil has grown at a 25% annually compounded rate since the early 1990s, one of only a handful of firms to do so over that timeframe.

With this success has come numerous opportunities for Muir. "We build products for an exceptionally broad business," said Muir, further noting how Jabil competes in numerous markets, from computing and storage to healthcare and instrumentation to defense and aerospace, across the globe. Having such a vast business has given him, and others at Jabil, the opportunity to "build relationships with multiple customers," he said.

Muir joined the firm as a Quality Engineer after graduating from the combined BS ISE and MBA degree program at UF in 1992. "We want to grow people internally and promote internally," he said. This clearly depicts his career, where he has progressed through various management positions, including Senior Director of Operations for Florida, Michigan, Guadalajara and Chihuahua. He also served as Senior Vice President, Regional President – Asia and Vice President of Global Business Units before taking his current position in 2007. For his previous two positions he was posted in Shanghai and Singapore.

In his current position, which he took in 2007, he presides over roughly \$14 billion in revenues and nearly 70,000 employees. One of his current tasks is to rebuild the Industrial Engineering function in Jabil, merging it with current Lean Manufacturing initiatives currently underway.

So in reflecting on his career and Jabil, he urged the attendees to align themselves with organizations that are complex and growing. "We do a lot of different things," he summarized. "Try to tie yourself to similar organizations for more opportunities."

ALLIGOOD REFLECTS ON DIVERSE CAREER IN GREGORY LECTURE

Humble beginnings. There is no other way to describe Bob Alligood's start in life in rural Moultrie, Georgia.

In fact, he admitted that heading to university was a "freak accident" while giving the Gregory Lecture this past December. Growing up in Georgia, there was little thought of going to university. But when his father lost his job in 1949 and headed to Lake Wales, Florida for work, Alligood enrolled in a high school where 92% of the graduates went to college and that "made a big impact," admitted Alligood.

He first joined the Army and after three years of service, enrolled at the University of Florida in 1956 under the GI Bill. He started in the business school, thinking it "would be an easier route," but admitted that he "didn't like the courses." His love of numbers made him gravitate to Mechanical, then Industrial Engineering.

In the Engineering College, he immediately got involved with the Benton Engineering Council. This led him to his first taste of politics. He was put in charge of securing funds for the Council's activities. But the funds were controlled by the Student Government, which had extremely poor representation from engineering. So Alligood put together a winning slate for Student Government. He was Vice President and BEC received their necessary funds the next year – mission accomplished.

He graduated with honors in 1960 as a member of the UF Hall of Fame, and continued to serve the profession and also kept his toes in politics. Upon graduation he took the helm of the Florida Engineering Society, as Executive Director, in Orlando, and held the position for eight years. While the Executive Director, he was elected as a State Representative for Orange County. Although he only served two terms, this was the beginning of many political service appointments. For example, he was appointed to the Florida Council of 100 by Governor Askew in 1974 (eventually served

as Vice President on the Board of Directors Executive Committee), the Jacksonville Committee of 100, the Governor's Commission on Productivity (under Governor Graham), and the Chairman of the Economic Development Advisory Board (under Governor Bush).

While his service to the public grew, his work in the private sector also grew. He started in 1966 as Vice President of Watson & Company, Architects and Engineers. This began a successful run in design/build firms, most notably with Reynolds, Smith and Hills, Architects, Engineers, Planners, Inc. "I was selling a service for most of my life – the talents of my people," explained Alligood. He served as Senior Vice President from 1968 to 1983, President of their international arm from 1976 to 1983 and President and CEO from 1983 to 1988.

"Overlearn what you are selling," said Alligood. "You have to know your product and know where to go." This was true when overseeing the international arm of RS&H. Due to the poor economy in the U.S., he opened offices in Germany, Egypt and Saudi Arabia, forming a partnership with a Civil Engineer in Rihad in one day. The tactics worked, as he grew RS&H to 1800 people by 1983.

After taking some time off in 1988, he returned to the private sector in 1992 with his own firm – specializing in "creating and pursuing innovative business opportunities". Currently, he serves as the Founder, Owner, President and CEO of Ice House America (IHA). The company manufactures and distributes ice vending and storage machines worldwide. He resides in Jacksonville with IHA production occurring just over the border in Georgia, not far from his roots.

He went on to attribute much of his success to hard work and working with good people. "It doesn't matter what others think," said Alligood. "It's your attitude that makes the difference. You've got to believe in yourself."



ALUMNI UPDATES



ISE alums Natalie Keller and Andy Fox visit Chennai, India. They met with fellow ISE alum, Arun Narayanan a native of the Chennai area.

Joshua Bass (BS ISE 1999) is Director of Strategic Planning and Analysis at JM Family Enterprises, based in Deerfield Beach. He will lead strategic planning, sales process improvement, business intelligence and operational efficiency and report to the CFO.

Trudy (Bork) Daniels (BS IE 1981) is Director of IT Enterprise Services at Crystal Clear Technologies, Inc., in St. Petersburg. She was also recently married.

Wendy (Frimet) Jacobs (BS ISE 1994) is now a consultant with Slalom Consulting in the Denver, Colorado area.

Joe Moskal (MS ISE 2010) is now VP of Quality Assurance at Genesis Global Sourcing in south Florida.

Art Perez (BS ISE 1983) is now Director of Planning and Customer Service at Bacardi in Coral Gables.

Ashwin Prabhakaran (MS ISE 2011) is now an Applications Engineer at Alabama Specialty Products, Inc., in Munford, Alabama.

Diana (Castro) Ramirez (MS ISE 2012) is now a Quality Engineer at GE in the Tampa area.

NEW STUDENT ORGANIZATIONS MEETING SPACE AND SENIOR DESIGN LABORATORY OPENED



Thanks to the generosity of Procter & Gamble, Rockwell Collins and Walt Disney World Parks & Resorts, the Department renovated 340 square feet of space on the 4th floor of Weil Hall. The space includes a conference meeting area with large projection screen, a smaller meeting area with projection screen, two dedicated workstations with high-end software, a storage closet for student organizations, and a small lounge area with comfortable seating.

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SYSTEMS ENGINEERING
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FALL, 2011 GRADUATES

THE DEPARTMENT conferred 22 B.S. and 28 M.S./M.E. of Industrial and Systems Engineering in December of 2011. For the undergraduates, five were headed to graduate school, two were headed to work for the government and 11 were headed to industry. Firms that were hiring included GE, Texas Instruments, Shands, ExxonMobil, Accenture and Amazon.

B.S. in Industrial and Systems Engineering

Bertens, Alex	Jaegerman, Veronica
Catron, Travis L.	Levy Florio, Natalia
Chadha, Vikram	McClain, Jr., Coleman D
Coots, Katrina L	McLeod, Grant
Darville, Clyde Alan	Mendoza, Rudy
Edwards, Jillian	Migliazza, Andrew
Hotchkiss, Taylor B	Ottey, Etosha
Jackson, John	Pena, Maria A

M.S./M.E. in Industrial and Systems Engineering

Perrin, Omar Leon	Alshareef, Khaled H	Harper, Anthony D	Rivera, Mark C
Rek, Brenda	Boston, James	Huang, Ming-Hsi	Safford, Pamela C
Rivera, Sherwin G	Cao, Emmanuel B	Jiang, Ruiwei	Scavone, John J
Sheperd, Christina E	Chalaopak, Kasidit V	John, Vinod A	Su, Yiqiang
Umerah, Izu	Cheng, Chih-Cheng	Kadayam, Viswanathan	Tai, Cheng-Hong
Whitford, John L	Choudhuri, Eeshan	Karadeniz, Orkun	Teague, Nicholas
	Cote, Steven C	Mansinghka, Vinay	Turner, Irving
	Cruz, Carolyn	Pappu, Vijay S	Xu, Tingting
	Forte, Ashley	Pohekar, Sojwal Dilip	
	Guo, Ning	Praturi, Anvesh Venk	