

INDUSTRIAL & SYSTEMS ENGINEERING

ISE NEWS

SPRING 2010

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ISE LAUNCHES HALL OF FAME

UF | UNIVERSITY of
FLORIDA

CHAIRMAN'S COLUMN



Dear Alumni and Friends,

Our 75th Anniversary Celebration last November was truly a spectacular weekend. Alumni and former faculty returned to Gainesville to meet students, tour campus (including the President's house), participate in panel discussions, feast and watch the Gators beat Vanderbilt. For those of you that made it back to campus, I thank you for your participation.

Friday evening, which culminated in a banquet honoring our past, proved to be magical. As there is no better time to start a tradition than when honoring the past, we introduced our ISE Leadership Award – commonly referred to as our Hall of Fame by students and faculty. The award recognizes graduates who have achieved a distinguished record of leadership in his or

her chosen profession and have performed outstanding service to the department, college, university or profession.

Major General John Alison, Hjalma Johnson, John Dasburg, Linda Parker Hudson, Louis Martin-Vega, and Glenn Renwick were named to the inaugural class. You can read about them, and their amazing careers, in this issue. Note that this is only the start of a tradition. We will be naming members to our Hall of Fame on an annual basis.

The evening was captured with photographs and videos – one produced by the students will make you laugh, and make you proud. I strongly suggest you take a close look on our website.

With the celebration behind us, we are now building on our next 75 years. I noted last fall that there is a strong sense of optimism across campus, especially in the college. The Dean had undertaken a process to identify areas worthy of investment in order to move the college forward. Those plans are coming into focus and the Dean has identified three areas of application that will be addressed: (1) Sustainability (including infrastructure and energy); (2) Security; and (3) Healthcare. Furthermore, technologies that enable analysis in these areas will also be the focus of investment. These include (1) Computational Science; (2) Information Technology; and (3) Nano/Microtechnology.

It is clear that our Department has a lot to offer in these areas. We currently have faculty working in Sustainability, including electricity grid network design and smart transportation, Security, including network interdiction, and Healthcare, from efficient delivery to disease detection to radiation treatment. Furthermore, the methods our faculty and students use can easily be described as Computational Science, whether mathematical

programming, simulation, or stochastic processes. Additionally, we generally utilize Information Technology to bring these solutions to life through decision support systems. We are currently searching for a new faculty member (yes, we are growing!), but we hope this is only the first of many, new hires as we implement the strategic plan.

Note that we, in the Department, are not the only ones who believe that ISE can be central to this hiring in the college. The Dean recently visited with the faculty, students and departmental advisory board and stated, strongly, that ISE is one of the only departments that can participate in all of the application and enabling technology areas. She noted our strengths in optimization and risk management and how these can be central to future growth. So now you've heard it from the top, providing more fuel for our optimism.

In closing, this newsletter is packed! In addition to reading about the celebration, award winners, graduates and our students, you can read about some of our work in the area of energy. This will continue to grow as an area of importance in our research portfolio.

Finally, Erin Wallace opened our banquet last fall with a simple statement: "Tonight is all about reconnecting." During that weekend, I learned that our alumni, students and faculty do enjoy reconnecting. While we do not plan on holding such big events on a continuous basis, look for us to do more to bring our ISE Gator Nation together – both in reality and virtually. If you have some ideas on how you would like us to facilitate alumni interaction, please let me know (392-352-1464, ext. 2002; hartman@ise.ufl.edu). Or drop a note to Tasha Martin (392-352-1464, ext 2055; tlmartin@eng.ufl.edu), our new ISE Director of Development. She previously worked for the College of Sciences at the University of Central Florida and we are excited to have her on board. She introduces herself later in this newsletter. By now you should know that we enjoy hearing from you!

GO GATORS!

Sincerely,

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

Joseph C. Hartman
Professor & Chair

352-392-1464
hartman@ise.ufl.edu



McCoy STEPS INTO LEAD AMBASSADOR ROLE

Who said you are supposed to coast to graduation in your final semester? Not senior Lindsey McCoy. Tasked with recruiting a volunteer student force to support the 75th Anniversary Celebration last November, ISE senior Lindsey McCoy – with the help of other ISE Student Advisory Council members – established the ISE Ambassadors. Clad in matching T-shirts, they ensured that the weekend went smoothly.

With the conclusion of the event, it would have been natural to disband the group, as its mission was fulfilled. Instead, the ISE Student Advisory Council defined its new mission: fostering alumni-student relationships. Furthermore, they named McCoy its first leader. (You can read more about the ISE Ambassadors in the accompanying article.)

Being the “Head” Ambassador seems a natural extension of the affable McCoy. She is often found in the IIE lounge hanging out with fellow students or tailgating on The Bus. And it is rare for her to miss a student mixer. “The students I have met in my classes have become some of my closest friends,” explained McCoy. “I know I will miss the personal relationships I have built over the years within the ISE department, but I will leave knowing that I had an amazing Gator experience!”

McCoy is graduating this spring and will head to work with Nielsen. She has excelled in the classroom, but has also built-up her real-world experience through a three-term co-op rotation with Walt Disney World. “The co-op solidified my passion for industrial and systems engineering and gave me a chance to consult with clients and aid in business process improvement,” said McCoy. “I gained invaluable experience in project management, statistical analysis, and decision support systems.”

Returning from her co-op, McCoy realized that she wanted to get more involved with the department. She went on to be a Vice President for both IIE and Alpha Pi Mu. During her terms, she established new events and increased freshmen and graduate student participation. She also helped convert an old bus into an “orange and blue tailgating machine.”

Given her friends and standing in the department, it is hard to believe that she was almost a Civil Engineer. “I soon realized that buildings and concrete were not for me,” said McCoy. “As soon as I learned of the ISE degree, with its business, production and programming emphasis, I went to my advisor and changed majors.”

With her graduation, the department will be losing an enthusiastic leader. Fortunately, it will gain an enthusiastic alumnus. “As a fourth generation Gator, I have always bled orange and blue,” she said, with her usual smile.



HARTION TAKING IT ONE DAY AT A TIME

When Brett Hariton was elected President of IIE for Spring 2010, the first thing he did was call his parents with the good news. “They always taught me to be open to new ideas and experiences throughout my life,” said Hariton. “Being President of IIE is just one more adventure I look forward to in this lifetime.”

This ideal has traveled with Hariton throughout his college career at UF, which began in 2005. Originally leaning towards Mechanical Engineering, he decided to take the 1-credit “Introduction to Engineering” class just to be sure of his decision. What he discovered really jolted him. “I didn’t like [Mechanical Engineering]. It was too rigid. Too serious.” It was during that course he found his calling in a different specialization - Industrial & Systems Engineering. “The real life applications were practical and I found it to be the most socially open field within engineering.” With this newfound understanding, he transferred into the Industrial and Systems Engineering department in Fall 2006.

Since joining the ISE department, Brett has gained valuable knowledge through various experiences. He has completed 2 internships with Lockheed Martin, and has already confirmed to do a 3rd internship with General Electric over the summer of 2010. In addition to being in IIE, he is also a member of Florida Club Swimming at the University of Florida, which travels all over the southeast to compete against other schools. “Being on a competitive team translates very well over to being part of a student organization like IIE. We all need to work together towards a goal, and we should all support one another in order to achieve that goal.”

As President, Brett plans to take IIE in a slightly different direction. He wants to branch IIE out not only to more graduate ISE students, but to other UF engineering organizations on campus in order to expand the support within Gator Engineering. During this semester, IIE will be partaking in a camping trip with Society of Hispanic Professional Engineers (SHPE), and is currently collaborating with APM to set up a learning seminar to teach ISE students about software programs not covered within the curriculum, such as Microsoft Visio and Doodle Scheduling Tool. He hopes this seminar will expand the students’ skill set that will eventually kick start their future careers. “I admire all of the work from the past members, and I hope what we do this semester helps shape the future of IIE.”

Interestingly enough, Brett’s future plans are up in the air. He is graduating in December 2010, but when asked about where he sees himself in the next year, he simply replies, “I don’t know. Graduation is a long way away, and I want to enjoy as much of UF as I can until then. I’ve experienced some amazing things, and I’m not done with this journey yet.” Whatever the future holds, it’s certain that Hariton will embrace every experience given, and that’s a good thing.

STUDENT GROUPS EXPAND TO BROADEN REACH



Ambassadors helping at the anniversary events.

matching T-shirts and smiling faces. These students have formed a new group called the ISE Ambassadors.

Conceived by the ISE Student Advisory Council (ISESAC) to help facilitate the Anniversary Celebration Events, including checking in alumni, selling merchandise, providing tours, and giving directions, students were asked to apply for the positions. More than 80 students responded to the call for 30 volunteers! "I think the response to our initial emails [for the Ambassador position] really shows the enthusiasm that students have for this department," said Lindsey McCoy, a senior ISE major, member of ISESAC and current President of the ISE Ambassadors.

"We wanted to make the alumni experience the best it could be and include many opportunities for student and alumni interaction," elaborated McCoy. "I think the 75th celebration would not have been as successful as it was

without the ambassadors present."

One Ambassador, Christina Bird, a 5th year senior, who joined to be a campus tour guide, had a great experience. "This was a really great opportunity for me to meet some very interesting alumni, including one man who served in the Vietnam War and another who became CEO of his company," said Bird. "It was very inspiring to see how far my ISE degree from the University of Florida could take me."

The Ambassadors filled a great need and were praised by the alumni and faculty. It also triggered an idea for the future. "Seeing these students that have volunteered for the sole purpose of meeting alumni really made us sit back think about the future," reflected ISE Department Chair Joseph Hartman. "These students represent a tremendously enthusiastic resource that want to help the Department."

And so, the ISE Ambassadors will live on. Their mission is to provide a student touch to alumni relations. Working closely with ISE Development Officer Tasha Martin, the ISE Ambassadors will help coordinate future alumni activities as well as other outreach activities.

INFORMS STUDENT CHAPTER INCREASES RESEARCH OPPORTUNITIES

The ISE Department is known for its strong research program with top faculty graduating Ph.D. students into top research positions throughout the world. More students are hoping to tap into this success as the University of Florida chapter of INFORMS was established in the fall of 2009 by Vijay Muralidharan, an ISE graduate student, and Andrew Vittetoe, an undergraduate.

The mission of INFORMS is to foster interest in research within industrial and systems engineering, especially in the field of opera-

THE ISE DEPARTMENT has long been known for its outgoing students and strong student leaders. The student chapters of the Institute of Industrial Engineers (IIE) and Alpha Pi Mu (APM) have been extremely active for years. To complement these groups, the Department recently established two more student groups: a student chapter of the Institute for Operations Research and Management Science (INFORMS) and the ISE Ambassadors.

The ISE Student Advisory Council (ISESAC) is comprised of leaders from each of these groups, as well as student-elected undergraduate and graduate students. This Council meets monthly with the Chair in order to share ideas between students and faculty while also coordinating the activities of all of the student groups.

With four groups, the ISESAC recently sat down to discuss the mission of each group. IIE continues its mission as the professional society for our students, fostering relationships with industry and providing career guidance for students. APM remains the academic honors society for Industrial and Systems Engineering, but they have been charged with taking a stronger role in both the recruiting and advising of undergraduate students. INFORMS has established its role as the leading student group dealing with research. Their mission entails fostering research opportunities, for both undergraduate and graduate students, and promoting research activities through conference participation and technical talks. Finally, the ISE Ambassadors have been established such that students can aid in fostering relations with alumni. More about these two new groups follows.

AMBASSADORS ESTABLISHED TO FOSTER ALUMNI RELATIONS

If you attended the ISE Department's 75th Anniversary Celebration, you may have noticed numerous students wandering around with

tions research (OR). INFORMS furthers students' education outside of the classroom by sponsoring technical talks and conference participation. INFORMS also cultivates relations with other INFORMS chapters and universities within the region and provides support for students seeking research opportunities such as fellowships and grants.

Since its conception, INFORMS has been generating student interest and expanding its presence throughout the ISE student body at a fast pace. "Only five students attended our first meeting last fall," recalls Andrew Vittetoe, ISESAC member and current INFORMS president. "It was an inauspicious beginning, but by the second meeting attendance had grown to 23 and almost 40 students attended our most recent meeting."

A distinctive characteristic of INFORMS is the well-represented cross-section of PhD, Master's, and undergraduate students who are involved in its activities. "INFORMS is a rather unique organization on the UF campus," says current vice-president, Vijay Muralidharan. "We have a very strong representation of both undergraduate and graduate students at our meetings and participating in our events. This means

that INFORMS represents a significant interface between ISE departmental graduate and undergraduate programming."

At present INFORMS continues to grow as a valuable resource to students interested in research. In addition, the chapter is developing and expanding three initiatives: 1) the creation of further research opportunities for undergraduates by establishing a National Science Foundation Research Experience for Undergraduates (REU) within the ISE department, 2) the establishment of the first-ever Graduate Speaker Exchange Program (GREP) with the USF chapter of INFORMS, and 3) the expansion of relations with faculty and students of ISE departments at universities throughout the Southeast. The GREP program currently encourages the interchange of ideas and information by providing PhDs and graduate students from USF and UF opportunities for presenting their research findings. In the next year, the program will expand to include the faculty and graduate students of other ISE departments in the region.

"This is just the beginning," promises Vittetoe. "INFORMS will continue to grow and develop resources and opportunities for UF ISE students to pursue their particular interests in research."

ISE STUDENT ADVISORY COUNCIL

IIE	Alpha Pi Mu	INFORMS	ISE Ambassadors
<ul style="list-style-type: none"> • Networking Opportunities • Professional Development • Career Planning • Corporate Liaison 	<ul style="list-style-type: none"> • Scholarship Promotion • Undergrad Advising • Community Service • Faculty Relations 	<ul style="list-style-type: none"> • Scientific Research • Graduate & PhD Advising • Academic Presentations • Operations Research Focus 	<ul style="list-style-type: none"> • Alumni Relations • Departmental Recruiting • Event Hosting • Face of the Department

FALL, 2009 GRADUATES

THE DEPARTMENT conferred 26 undergraduate and 19 graduate degrees this past December. The graduate degrees included two Ph.D. students, Chunhua Men and Ashish Nemani. Both headed west, Men to a post-doctoral position in the Department of Radiation Oncology at the University of California at San Diego while Nemani will work for Intel in Arizona.

Despite an economy that continues to sag, students had good success in landing jobs. Those hiring this semester included Disney, FedEx, General Electric, Harris Corporation, Intel, Knolls Atomic Power Lab, Lockheed Martin, Nielsen and the Naval Surface Warfare Center.

B.S. in Industrial and Systems Engineering

Azcurra, Tomas A.	Hoadley, Tiffany May	Snyder, John
Caloras, Jamison S.	Huppert, Kristen M.	Stannard, Jay F. III
Demcoe, Evan	Mallek, Adam R.	Swarthout, Vanessa
Dressel, William Jon	Martinez, Daniel	Thedja, Daniel
Epstein, Alexander	Mevers, Heather N.	Toro, A. Pablo
Esguerra, Maria I.	Orr, Patrick	Winters, Joshua
Fair, Joshua	Portela, Joseph H.	Winters, Justin S.
Flohr, Karl	Sanchelima, Christian	
Fox, Andrew S.	Simons, Andrew	
Guadagna, Michelle L.		

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

Amaya, Leal Johanna	Kansara, Jwalant V.	Perez, Cinthia C.
Chen, Hsin-Yuan	Kim, Jinho	Peterson, Kira M.
Duvvuri, Abhinay	Konur, Dincer	Sarmiento, Freddy R.
Garuti, Roberto	Lopez, Alejandro M.	Stam, Alexandre
Guru_Murthy, Anirudh	Naik, Saloni	Zhang, Linyu
He, Liang	Pathak, Ketaki D.	

75th Anniversary Recap

THE DEPARTMENT OF INDUSTRIAL AND SYSTEMS ENGINEERING celebrated its 75th Anniversary with a full slate of activities on the weekend of November 6, 2009. Friday morning activities included student-led tours of Weil Hall and campus followed by lunch at the President's house. A student panel answered questions from alumni about "Life at UF in 2009." The afternoon was highlighted by three parallel sessions covering Research, Entrepreneurship and Executive Leadership, respectively. Each panel was populated with alumni and faculty.

The day culminated with a reception and banquet at the Hilton Conference Center just off campus. Upon entry, alumni, faculty, emeriti faculty, students and guests, over 200 people in total, were greeted by slide-shows of photographs of the department, campus, faculty and students over the years. Many of these were acquired from the Smathers' Library special collection.

After dinner was served, the evening's events got underway with a compilation of video clips of alumni, emeriti faculty and current faculty remembering the Department and why it was, or is, so special. Erin Wallace of Walt Disney World, serving as the Master of Ceremonies for the evening, then welcomed special guests and Joseph Hartman, current Chair of the Department. Hartman reviewed the state of the department, including its current research thrusts, while reflecting back on its roots – introducing Ms. Wilma Andrews Smith, the first female graduate of the Department in 1959, and Dr. Mario Padron, the first Ph.D. graduate in 1969.

Hartman then turned the program over to Mr. Roger Madariaga, Chair of the ISE Advisory Board, who introduced the ISE Alumni Leadership Award. More information on the award and its inaugural class of awardees follows. Erin Wallace returned to the stage to congratulate the inaugural ISE "Hall of Fame" members and remind the alumni to keep in touch and stay active with their alma mater. She then turned the program over to Natalie Keller, former President of the student IIE Chapter at UF, who closed the program with a student-made video.

As if that wasn't enough, most attendees, and a few new ones, showed up for a tailgate sponsored by the College of Engineering in the late afternoon on Saturday and watched the Gators beat the Commodores of Vanderbilt University. Some alumni even made it out to Lake Wauburg for a wrap-up picnic with the IIE Student Chapter. What a weekend!



This award recognizes graduates of the Department of Industrial and Systems Engineering in the College of Engineering at the University of Florida that have achieved a distinguished record of leadership in his or her chosen profession or life's work, whether in the academic, corporate, entrepreneurial, non-profit, government or military sector; and performed outstanding service to the department, college, university or profession. It is expected that the awardee is a person of such integrity, stature, demonstrated ability and renown, that the faculty, staff, students and alumni of the Department of Industrial and Systems Engineering will take pride in, and be inspired by, his or her recognition.

INDUSTRIAL AND SYSTEMS ENGINEERING ALUMNI LEADERSHIP AWARD



Roger Madariaga, Chair of the Industrial and Systems Engineering Advisory Board, unveiled the Alumni Leadership Award at the Friday evening banquet held in honor of the Department's 75th Anniversary. "Given the somewhat long and boring name, the board, faculty and students are more commonly referring this to as our Hall of Fame," explained Madariaga.

"The fact is, our Department has a 75-year history with over 5000 graduates from the bachelor's degree through the Ph.D. Among those graduates, a number have stood out in their given endeavor," said Madariaga. "With this anniversary, the board and faculty felt that this was an ideal time to begin recognizing these highly successful alumni."

The inaugural class was recognized at the banquet. Future winners will be formally recognized at the Department's annual spring banquet. Pictures and biographies of all winners will be prominently and permanently displayed in the Department's conference room and on the website.

The award recognizes outstanding leadership, as noted in its description in this article. Each recipient was awarded a Gator on a pedestal, also shown here. Board members David Paolini, Bill Nulty, Hunter Jones, Kevin Maher, Eric Stern and Madariaga introduced the inaugural class, described.

ISE HALL

CLASS OF 2009



Major General John R. Alison
B.S. Industrial Engineering 1936

Born in Gainesville in 1912, Major General John R. Alison graduated in 1936 with a B.S. in Industrial Engineering and immediately joined the US Army Air Corps. He earned his wings and was commissioned at Kelly Field in 1937. This was the start of a tremendous military to career.

Prior to America's entry into World War II, he trained British and Russian pilots on the P-40, A-20, and B-25 Mitchell aircraft. He saw his first military combat in Asia, earning both the Distinguished Service Cross and Silver Star. Ending his tour as commander of the 75th Fighter Squadron, General Alison left as an ace with seven confirmed victories and several probable kills.

After the war, he served as an Assistant Secretary of Commerce, President of the Air Force Association, and as a Major General in the Air Force Reserve. He returned to combat to serve in the Korean War. He retired as Vice President of the Northrop Corporation in 1984 and was a 1994 inductee into the Air Commando Hall of Fame. In 2005, he was enshrined in the National Aviation Hall of Fame.

"To say that I am proud of this is an understatement," said Alison to a standing ovation upon receiving his ISE Alumni Leadership Award. "I am very grateful that I could go to the University of Florida."

In closing, he turned to the students present, saying "I just hope that as many of our young people have the opportunity to not only get the education, but the association with friends and with faculty."



Hjalma Johnson
B. Industrial Engineering 1958

Despite being unavailable for the evening, 1958 graduate Hjalma Johnson accepted his award via a video. "In doing a little bit of arithmetic, I was quickly able to determine that Hjalma's birth year is the same as ISE's birth year, 1934," noted Johnson with a chuckle. "So, I am here to say tonight that [being an IE] was in the cards."

Johnson graduated with a Bachelor of Industrial Engineering from UF with high honors in 1958, and is a U.S. Army Veteran, having served as Counter-Intelligence Office at the U.S. Army Europe Headquarters in Heidelberg, Germany. He received a J.D. from the Birmingham School of Law in 1965 and is a 1968 graduate of the Stonier Graduate School of Banking, Rutgers University. His business career included Procter & Gamble and IBM.

He was the founding chairman and CEO of East Coast Bank Corp., Ormond Beach, Florida in 1973, and concluded his active banking career as Manager of External Affairs for Regions Financial Corp., Birmingham, Alabama, in 2004. He is a past President of the Florida Bankers Association and the American Bankers Association, Washington, D.C., where he continues to serve as Membership Ambassador and on the Government Relations Council. He served on the Board of Directors of the UF Foundation and the UF Athletic Association. He also served on the UF Warrington College of Business Advisory Council, is a past President of Gator Boosters, Inc., and serves on the College of Engineering Advisory Board. Johnson was named a University of Florida Distinguished Alumnus Entrepreneur of the Year in 2007 and received a Distinguished Alumnus Award in 2009.

"I have to tell you that all along the way, my Industrial Engineering training was extremely instrumental in the success that I enjoyed," said Johnson. "Engineering economy and all the other basic engineering courses have brought me here to this beautiful evening."



John H. Dasburg
B.S. Industrial Engineering 1966

John H. Dasburg is Chairman and Chief Executive Officer and co-owner of ASTAR Air Cargo, Inc. in Miami, Florida. He previously served as President and Chief Executive Officer of Burger King Corporation and ten years as President and Chief Executive Officer of Northwest Airlines, the world's fourth largest airline. He previously held positions with DHL Airways, Marriott Corporation and KPMG.

Dasburg received the 2001 Horatio Alger Award for Distinguished Americans and was a recipient of the Commercial Air Transport Laureate Award in 2001. He was named airline industry "Man of the Year" in 1994 by Travel Agent and has received numerous awards and recognitions of business distinction. He holds a B.S. in Industrial Engineering, an M.B.A. and a J.D. from the University of Florida. He has served on the University of Florida Board of Trustees and in 1998 he received the University of Florida Distinguished Alumnus Award.

"Throughout my business career, the discipline of engineering with my experience in engineering school has served me very well and probably singularly has more to do with whatever success I've had than with any of the other programs and any other academic background that I have," said Dasburg upon receipt of his award. "I am very proud of having graduated from the University of Florida School of Engineering."

OF FAME



*Linda Parker Hudson
B.S. Systems Engineering 1972*

"My time at Florida was extraordinary," said Linda Parker Hudson, Chief Operating Officer of BAE Systems plc, and President and CEO of BAE Systems, Inc as she received her award. "Not only was my time at the Engineering College and in the Industrial and Systems Engineering Department preparing me for an extraordinary career, it prepared me for an extraordinary life."

Hudson's current role is the culmination of a spectacular career in the defense industry. She previously served as President of BAE Systems' Land & Armaments Operating Group. Prior to joining BAE, she enjoyed roles at General Dynamics, Martin Marietta, Lockheed Martin, Harris Corporation, and Ford Aerospace.

Hudson received her B.S. in Systems Engineering, with honors, in 1972. She remains active in the alumni and athletic associations of the University and serves on the College of Engineering advisory board. She has received recognition and numerous awards, including NDIA's prestigious "Firepower Award" and the National Infantry Association's "Military Order of St. Maurice." She has been referred to as the "first lady of defence" by the London Sunday Times and was recently named to the list of Most Powerful Woman in Business by Newsweek. Finally, she was just named a University of Florida Distinguished Alumnus Award winner.

"For all of you and others who look toward what they should do and where they should go, I can't think of a more amazing place to be than at Florida and in the College of Engineering," said Hudson. "It made me who I am, what I am, how I think and what I do."



*Louis A. Martin-Vega
M.E. Industrial and Systems Engineering 1973, Ph.D. Industrial and Systems Engineering 1975*

Louis A. Martin-Vega is the Dean of Engineering at North Carolina State University, with over 8,200 students, 900 faculty and staff and \$120 million in annual research expenditures. Prior to joining N.C. State in 2006, he spent five years as the Dean of Engineering at the University of South Florida in Tampa, Florida. He has also served in various capacities at NSF, including Acting Head of the Engineering Directorate and Director of the Division of Design, Manufacture and Industrial Innovation, in addition to faculty positions at Lehigh University, the Florida Institute of Technology, the University of Florida and the University of Puerto Rico at Mayaguez. He served as President of the Institute of Industrial Engineers in 2006-07.

"You can see that that resume is about someone who hasn't been able to hold a job," laughed Martin-Vega as he accepted his award. He further entertained the crowd with the tale of moving his family to Gainesville from New York via Waldo on Amtrak. Needless to say, his wife Maggie was a little nervous, asking, "This is Waldo, and it has a train station. And Gainesville doesn't?" He assured her it had a university.

Martin-Vega has received numerous awards. He was inducted into the Pan American Academy of Engineering in 2002 and was the Hispanic Engineering National Achievement Award – Higher Education Category winner from HENACC. In 2007, Hispanic Business Magazine named him as one of its 100 Most Influential Hispanics. Martin-Vega received his B.S. in Industrial Engineering from the University of Puerto Rico at Mayaguez, an M.S. in Operations Research from New York University and M.E. and Ph.D. degrees in Industrial and Systems Engineering from the University of Florida.

"I am truly honored and humbled by this award," said Martin-Vega, noting that it was great to be back home. "This is truly an outstanding department. A department of very high quality. This is the legacy that has been developed, and the legacy that has to carry on."



*Glenn M. Renwick
M.S. Industrial and Systems Engineering 1978*

Have you noticed that the colors for Progressive Insurance are orange and blue? Glenn Renwick, President and CEO of the Progressive Corporation since 2000, reminded the audience of this fact as he received his award. "I'm a Gator," he said with a smile – often working among Buckeyes at the company headquarters in Cleveland, Ohio.

Renwick joined Progressive in 1986 as its Florida product manager. In 1988, he assumed the role of president of Progressive's Operating division, managing several Mid-Atlantic states before becoming president of the California division. He previously led the company's Consumer Marketing and IT groups before being named CEO.

Mr. Renwick holds an undergraduate degree in mathematics and economics from the University of Canterbury in Christchurch, New Zealand. He earned an M.S. in Industrial and Systems Engineering from the University of Florida in 1978.

"Walking around campus today for me was a refresher as to how much I got from school," said Renwick on his visit for the celebration. "The discipline that I got from school here carried over and are deeply embedded in our company." He went on to explain that "Even though I now run an insurance company, I do my best to portray it as an optimization and statistics factory. Quite frankly, that is how we operate."



ALUMNI NEWS

Dear Alumni and Friends,

I am honored to join the University of Florida development team and serve as the Director of Development for Industrial and Systems Engineering. I feel privileged to work with such a dedicated group of individuals that are committed to providing top quality, state-of-the-art education in industrial and systems engineering while fostering leading edge instruction. One of my priorities is to engage alumni and friends of the ISE department and keep you informed of the outstanding work that is being accomplished in our department, in part, due to our generous supporters.

Despite the tough economy and strained budgets, our faculty and staff continue to provide a top-notch education for our students. We also continue to operate in an environment where colleges compete for the best students and try to attract and retain top faculty. It is a number one priority of the ISE department to continue to strengthen our programs and ensure that our students have the most up-to-date facilities so that graduates can excel in their field and our faculty can continue to enhance educational and research programs. As the ISE department continues to move forward, it will be imperative that alumni are engaged and continue to provide opportunities for students and faculty to pursue excellence in everything they do.

Our world is changing and we are now operating in an environment where recruitment and employment opportunities for our students are becoming an essential part of our success. ISE graduates are entering the workforce with a multi-disciplinary view of industrial and service systems.

They are employed and exuding excellence in various fields of work. I am eager to hear from you and learn more about your career path and your experience as a "Gator." When you share this information, it provides insight to our current students regarding the endless possibilities that await them after graduation and it also provides an opportunity for us to reconnect you with current students and the ISE department. It is always uplifting when an alumnus shares his/her knowledge with students in a Sales Engineering or Introduction to Engineering class or when their company is willing to sponsor a senior design project that provides hands-on experience for our students.

If you have not already done so, I encourage you to join your fellow alumni and take an active role in the future of the ISE department. I am committed to helping you play an active role in the growth of our programs and I look forward to meeting with you to share news of our successes in the future. There are several ways to get involved that include making a donation, providing internship opportunities, corporate recruiting and speaking with students. As an alumna/alumnus, perhaps your greatest reward is the role you play in preserving the spirit of the university and supporting your ISE family.

I would love to hear from you and look forward to meeting you. Please contact me at tlmartin@ufl.edu or 352-392-1461 ext. 2055.

Warm regards,
Tasha Martin
Director of Development



ALUMNI ROLL CALL, SPRING 2010 GUEST SPEAKERS

Al Atkins (BS IE 1965)
Joe Chenette (BS IE 1967)
John Gibson (BS IE 1969)
Bill McElroy (MS ISE 2002)
Cameron McCaskill (BS ISE 1992)
Matt Olsen (BS ISE 2002)
Trudy Ramsay (BS IE 1981)
Ron Rosenthal (BS SE 1974)
Jim Williams (BS ISE 1993)

ALUMNI UPDATES

THAD BYDLON (MS ISE 1978) is currently the CFO for F4W, Inc., in Orlando.

DAVID OVERBEY (MS ISE 1980) has been working with the management-consulting firm Robbins-Gioia in Alexandria, Virginia since 2001.

HEIDI ANN (SHREVES) BROWN (BS ISE 1983) and **PAUL BROWN** (BS ISE 1984) just celebrated 25 years of marriage. Paul is currently President of International Paper Asia, based in Shanghai, China and is responsible for manufacturing facilities, sales offices and distributions centers in China, India and Southeast Asia. The family, including children Hannah and Nate, recently relocated from Brussels, Belgium where Paul was VP and General Manager of International Paper Europe. This was their eighth relocation with the company in 25 years of service. Heidi enjoyed a nine-year career with General Electric and Chrysler Pentastar Electronics. Both received MBAs from Drexel University in 1989.

PHILLIP LI (BS IE 1987) has been teaching mathematics and physics at the high school while running his own real estate development firm, Li Investments Corp., in south Florida. He worked with Bellsouth for a number of years after graduation before turning to teaching.

RICK MITCHELL (BS ISE 1992) is a partner with the law firm GrayRobinson in Orlando.

JIM WILLIAMS (BS ISE 1993) is the North American Sales Director for Bytewise Measurement Systems in Columbus, Georgia. He went on to receive an MBA from the University of Georgia immediately after graduating from UF and has been in sales and sales management since.

ARNRY MIJON (BS ISE 1995, ME ISE 1997) is currently establishing a manufacturing business in Swaziland, Southern Africa.

DARREN LEVY (BS ISE 2002) is a mid-market client executive for IBM in Washington, D.C.

GANG (DEREK) CHEN (PhD 2003) and his Barclays Capital team have been named to the "2009 All-America Fixed Income Research Team" as the 2nd best analyst in the MBS/Prepayments category by Institutional Investor. Chen has been with Barclays Capital as a strategist in Mortgage Backed Securities (MBS) in New York City since March 2006.

DEON BURCHETT (MS ISE 2009) has been working with AMSAA, the Army Materiel Systems Analysis Activity group, in Aberdeen, Maryland as an operations research analyst.

MARTHA RODRIQUEZ (BS ISE 2009, MS ISE 2009) passed the F.E. Exam and now is a

certified Engineer in Training. She will start as a manufacturing engineer for Harris this summer.

ALUMNUS ESTABLISHES "PROMOTING EXCELLENCE IN ISE" FUND

Late last year, an endowment fund entitled "Promoting Excellence in ISE" was created to help the Department achieve its mission of delivering educational programs and directing research programs of the highest quality. The initial goal is to support lectures, faculty and lab enhancements within the Department of Industrial and Systems Engineering of the College of Engineering.

The initial donor hopes other ISE alumni understand the benefits that this fund will provide the department and will also contribute to the fund. The Department can obtain matching funds from the state once the pooled contributions meet state mandated funding levels.

If you are interested in adding to this fund, please contact Ms. Tasha Martin, ISE Development Officer, at 352-392-1464, ext. 2055, or tlmartin@eng.ufl.edu.

RESEARCH HISTORY

THE EADC/IAC: HELPING SMALL AND MEDIUM SIZED MANUFACTURERS FOR OVER 20 YEARS

Dr. Barney L. Capehart was on sabbatical at the U.S. Department of Energy (DOE) in Washington, D.C. in 1990 when the Industrial Technologies Division of the DOE issued a Request for Proposals to establish EADC's, or Energy Analysis and Diagnostic Centers, to perform energy audits at small and medium sized manufacturing plants. As this was directly in line with Capehart's research and teaching interests, he went to work on his Zenith 286 to get the proposal completed (with significant help from his wife Lynne). The proposal was successful, drawing on educational content (Capehart had been teaching an Energy Management course for five years in which students performed actual audits) and interdisciplinary ties (the proposed Associate Director was Dr. Dale Kirmse from Chemical Engineering), and in October of 1990, the UF Energy Analysis and Diagnostic Center was launched. Capehart was the first Director of the Center and served in that capacity until retirement in 1999.

Setting up the EADC

The old Human Factors lab in Weil Hall was converted into space for the EADC. The EADC contract brought in about \$50,000 for the first year. However, after overhead and other charges, there was little left for expenses other than some salary and graduate student money.

So Capehart scraped together what he could find – old desks, chairs, and computers to set up the new center. The funds were also to cover the expense of performing 15 audits for the year!

Capehart went through a training session at the EADC located at Colorado State University along with directors at the other newly founded centers: Iowa State and Notre Dame. The sessions covered the types of training to be performed; how the audit reports were to be written; software templates to be used for energy use and bills; and how to calculate energy savings from particular operational changes or equipment replacements.

Shortly after returning from the EADC Directors' Training, the Science Center authorized the spending of \$5,000 for energy audit equipment. With a few extra departmental dollars, a boiler efficiency analyzer, a compressed air leak detector, two light meters, an electrical multi-meter, a tape measure, a flashlight, five safety helmets and safety glasses, and a plastic toolbox were secured.

As the DOE only reimbursed expenses, the College of Engineering advanced ISE the money to get the EADC activity started. The mandate was to audit manufacturing companies that had 500 or fewer employees or energy bills less than or equal to \$1.5 million annually. They also had to be within 150 miles of UF, as the centers were being distributed geographically.

The First Audit

Heading to a flight in Jacksonville, Capehart ran into Bernanrd Nerat, a former student working for Xomed, a medical manufacturing firm in Jacksonville. Xomed manufactured ear drains, which prevented children from getting ear infections. More importantly, from the EADC's perspective, its size met the DOE's criteria.



ISE students participating in the International Energy Management course in the summer of 2009, performing an energy audit at a paper mill in Concepcion, Chile, operated by the Norwegian firm Norske Skog.



Barney L. Capehart



Diane A. Schaub



Cristián Cárdenas-Lailhacár

Capehart and Kirmse performed the audit on December 17 with Sumit Ray, a graduate student from India with a B.S. in Mechanical Engineering, and undergraduates Marcella (Mary) Wheeler, Marley Palmer, and Wayne Pollock. After a conference and plant tour, the team took the remainder of the day to collect data about the facility, including equipment, lighting, air-conditioning, motors, air compressors and operating hours. The facility operated one small old plastic injection molding machine, a sterilization chamber, some packaging equipment, and a couple of small air compressors. There was also a room where fairly standard electric drills were being converted for medical use.

Specifically, Palmer recorded data on the types of lights, number of lights, light wattages, types of ballasts and lighting levels. For air-conditioning, Pollock recorded all the data on the rooftop AC units, including their specifications in tons, number of units, unit manufacturer and serial numbers. Wheeler recorded the data on each large motor, including size, voltage, manufacturer, and efficiency, if it was listed on the motor nameplate. For the air compressors, Sumit recorded the number of air compressors, the nameplate data, and some data about why the compressed air was being used.

As this was the first audit report, the templates provided by Colorado State were new, and the audit was performed right before the semester break, the report was barely completed in the 60-day contracted limit – being mailed out on the last possible day. Remarkably, it turned out that UF was the only EADC that had completed its initial audit report on time.

The report recommended major upgrades to the lighting system, rooftop air conditioners, electric motors, and to plug leaks in the compressed air system. If they implemented these recommendations, it was estimated that they would reduce their electric bill by nearly 20%, with improvements that paid back in just over two years. These results were typical of what was recommended on EADC audits over the next nine years.

Expanded Role and a New Name

In 1994, the Department of Energy expanded the auditor's role of improving energy efficiency and energy cost reduction to include waste minimization. Mr. Joel Weber was added to the EADC team to help define and organize the efforts in waste minimization and determining cost effective recommendations in this area. The EADC added waste reduction analysis and recommendations to its reports, now called Plant Assessment Reports. In 1995, the mission was further broadened to include productivity improvement. With

this additional area, the DOE renamed the EADCs as Industrial Assessment Centers – IACs.

What is meant by the term industrial assessment? According to the DOE Industrial Technologies Program, "An industrial assessment is, quite simply, an in-depth assessment of a plant site; its facilities, services and manufacturing operations. This term is used to refer to a process, which involves a thorough examination of potential savings from: energy efficiency improvements, waste minimization and pollution prevention, and productivity improvement."

The IAC Today

Capehart retired from the University in 1999 after supervising the completion of 225 successful audits of small and medium sized manufacturing plants in Florida and Georgia. As the national program has grown significantly to include 26 participating universities, the IAC "facilitates productivity improvements of small and medium-sized manufacturing facilities in Florida, East Alabama, and South Georgia through increased energy efficiency, waste minimization and operations efficiency," according to the UF-IAC website.

The IAC, still funded by the DOE, is now under the direction of Dr. Diane Schaub with Dr. Cristian Cardenas serving as the Technical Manager. The center employs a number of students to perform its audits – about 12 per year. In fact, the center just completed its 429th audit in mid-September.

When asked if the IAC's mission is still relevant today, Schaub did not hesitate. "Absolutely," she answered. "In fact, the IAC directors are all very frustrated that we have not had our funding levels restored to previous levels when we used to do 25 assessments per year."

The state of Florida is also showing greater interest, recently funding the start of the Florida Energy Systems Consortium (FESC) at UF. "There is a push to get energy efficiency and renewables more visibility at the state level," elaborated Schaub. The center will likely play a key role, both with research and education.

The Department maintains the educational mission of the Center, teaching Energy Management each semester. This mission has expanded with Cardenas teaching an International Energy Management course each summer in which students travel to South America to perform energy audits.

The IAC celebrated
20 years of audits
this past October!

FACULTY UPDATES



RAVI AHUJA continues his research in transportation and railroad applications, including load planning, curfew planning, and crew planning, as well as implementation through his company Innovative Scheduling.

ELIF AKÇALI is visiting Özyegin University in Istanbul, Turkey this academic year, returning briefly for a symposium dealing with the National Academy of Engineering's grand challenges for the profession.

SHERMAN BAI is currently finishing his assignment as Director of the Beijing Center in China this semester.

VLADIMIR BOGINSKI continues to support Systems Engineering teaching efforts at REEF. He recently won a Young Investigator Award from DTRA, the Defense Threat Reduction Agency, to study complex networks.

CRISTIAN CARDENAS-LAILHACAR is planning a sabbatical in Chile at Pontificia Universidad Catolica de Valparaíso, working on energy research and developing graduate programs. He continues to develop faculty and student exchange programs in South America with the Dean's office and International Center.

JOE GEUNES was awarded a grant from the National Science Foundation to study coordination in decentralized supply chains and has two co-authored articles forthcoming in Mathematical Programming. He also graduated two PhD students into academic positions.

YONGPEI GUAN is studying the design and operation of energy networks, especially with the use of smart grid technology, through the support of the National Science Foundation and his CAREER Award.

JOE HARTMAN participated as the "Engineer in Residence" at the University of Illinois (Urbana-Champaign) this past fall and became President of the Association of Chairs of Operations Research Departments (ACORD).

SERDAR KIRLI continues to lead teaching efforts in information technology (programming, decision-support systems and web-based decision-support systems) in the department. He is also advising his first IPPD project this year.

GEORGE LAN is teaching his first Ph.D. course this spring, in non-linear optimization. His wife recently accepted a position in the Department of Agricultural and Biological Engineering on campus.

TOI LAWPHONGPANICH has been co-organizing the "Innovations in Pricing of Transportation Systems: Conference and Workshop" in Orlando, Florida on May 13 - 14, 2010. The workshop is sponsored by the National Science Foundation.

TIMOTHY MIDDELKOOP taught a new course in the fall titled "Computational Optimization," which teaches students how to implement optimization algorithms with an emphasis on using parallel and multi-core techniques.

PANOS PARDALOS received the UF 2009 International Educator Award and the Roberto D. Galvao Prize for best paper at the Symposium of the Brazilian Operational Research Society. He delivered invited lectures in Italy, England, Peru, Spain and Canada and published 11 books on the application of optimization to problems in medicine, energy and agriculture.

JEAN-PHILIPPE RICHARD won a grant from the National Science Foundation to study the solution of non-linear, integer programming problems with the use of strong cutting planes. The work is in collaboration with Purdue University.

DIANE SCHAUB returned to her Industrial Assessment Center and teaching duties after taking sabbatical last year. She is currently coordinating outreach and educational efforts with the newly formed Florida Institute for Sustainable Energy.



A number of former ISE faculty made it back to campus to celebrate the 75th Anniversary.

J. COLE SMITH is continuing his research on optimization theory with applications to security and project management. This spring, he is presenting his research in the United Kingdom and Portugal and plans to visit the University of Edinburgh for three months as a visiting scholar.

R. KEITH STANFILL is amazed at how fast the past ten years have flown by while directing the efforts of over 200 project teams and more than 1200 senior engineering students. IPPD is going strong this year with over 140 students and 24 design projects, including iPhone apps, autonomous wildfire surveillance, water remediation, sustainability, machine tool monitoring and control, work management software, and pavement design.

SULEYMAN TUFEKÇI continues his active participation in the IPPD program while teaching courses in lean manufacturing and manufacturing management to both graduate and undergraduate students.

STAN URYASEV continues his successful collaboration with Tyrrell Rockafellar on the application of optimization techniques to problems in finance, including portfolio optimization. Their work, published in the Journal of Risk, has been cited over 1000 times according to Google Scholar.

PETRAQ PAPAJORGJI and **PANDO GEORGIEV** have joined the Center for Applied Optimization as Research Scientists. Both are currently working with the Veterans Health Administration to improve healthcare delivery with systems engineering approaches, with Panos Pardalos.

PARDALOS LAUNCHES NEW JOURNAL IN ENERGY SYSTEMS

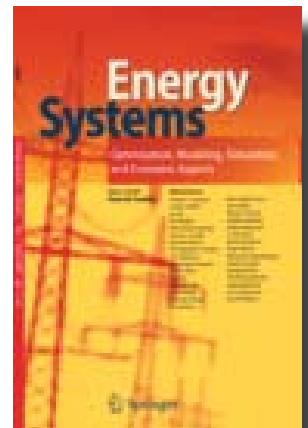
With growing interest in energy research, Distinguished Professor Panos Pardalos has launched a new journal with publisher Springer entitled Energy Systems: Optimization, Modeling, Simulation, and Economic Aspects. According to the website, the new journal aims for solutions through a variety of tools, including mathematical programming, control and economic approaches. The specific problems include “power systems optimization, unit commitment, power generation, power trading, electricity risk management, competition in electricity markets, bidding strategies as well as market power issues.” Modeling issues related to process optimization, synthesis, design and operations are also to be included.

“The release of this new journal is extremely timely as the problems are vast, difficult, and important,” said Pardalos. “We expect that there will be contributions from a number of fields as solutions will require a multi-disciplinary approach.”

“We are also excited that the Center for Applied Optimization and the Department of Industrial and Systems Engineering will be at the center of these advances,” said Pardalos, on the significance of hosting the journal.

Pardalos will serve as the journal’s Editor-in-Chief. He is joined on the Editorial Board by Timothy J. Anderson and Steffen Rebennack of the University of Florida, Christodoulos A. Floudas and Warren Powell of Princeton University, Shmuel Oren of the University of California, Berkeley, Suvrajeet Sen of Ohio State University and Jorge Valenzuela of Auburn University, among many others throughout the world.

The journal is now accepting articles that deal with theoretical, computational and applied aspects of energy systems, as well as review paper, and will publish its first volume next year. For more information, see the journal’s website at <http://www.springer.com/engineering/power+engineering/journal/12667>



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