

Spring 2008

UNIVERSITY OF FLORIDA

Industrial & Systems Engineering



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FLORIDA



Photo by Kristen Bartlett Grace

Dear Alumni and Friends,

I have been serving as chair of the Department of Industrial & Systems Engineering for more than a semester now, so I figured it was time to introduce myself. I am honored to join the Department and excited to be a part of the Gator Nation.

My knowledge of the Department started when I was a graduate student at Georgia Tech when I first met Mike Thomas, chair during the mid 1970s. It was also during this time that I met Mike's predecessor, Bob Braswell, while attending an IIE conference. As I have had numerous opportunities to interact with previous chairs Don Hearn and Jack Elzinga since I arrived on campus, it is interesting to reflect on the fact that I personally know the past 40 years of ISE leadership. I only hope that I can continue to build the Department on the solid foundation they have laid.

I will not bore you with the biographical details of my life, as they are elsewhere in this newsletter. My friends and family to the north (I am from the Chicago area) think I made this move for the climate change. I will admit that I like to play

a bit of golf and ride bikes with my children, but rest assured, I am here because I believe this Department is a hidden gem. Given the talented faculty, motivated students and successful alumni, the future is very bright.

I spent my first semester learning about the Department, the curriculum and the campus. (Yes, I was surprised that REAL alligators inhabit every pond, lake and creek on campus.) I also got on the road and met a number of ISE alumni. Listening to them speak about their passion for the Gator Nation and fond campus memories truly gets me excited about this job.

I also spent a bit of time speaking with recruiters in a variety of industries. It is clear that there is no better time to be an ISE, and industry holds our graduates in high esteem. Companies and government agencies from all sectors — from manufacturing and logistics to information technology, healthcare and finance — are hiring ISEs.

Before I ever arrived on campus, I did a lot of reading about the teaching and research that goes on in Gainesville. Needless to say, I was, and am, very excited about what is going on, as it led me to take the job. The following gives you my outsider's (becoming an insider's) view.

I think the undergraduate program is unique. While nearly all B.S. programs in the country can

Department U.S. News & World Report Rankings

Graduate Program Rankings

Public Institutions

April 2008 9th

Overall

April 2008 13th

Undergraduate Program Rankings

Public Institutions

August 2007 11th

Overall

August 2007 16th

boast strong analytical programs with application areas in manufacturing, logistics, and supply chain management, this program is unique because of its in-depth integration of decision support systems (led by Ravi Ahuja's efforts) and the soft skills (presentation, teaming, business skills) acquired through project courses, senior project, the sales minor and the business minor. Essentially, our students learn to recognize and understand a problem, develop a solution algorithm, implement the appropriate decision-support system and "sell" it to the client. It is a great combination of skills.

Our M.S. programs are healthier than ever, with students from all over the world pursuing degrees that cover manufacturing systems, logistics and engineering management. The Outreach Engineering Management program, under the guidance of Joseph Geunes, Patsy Messinger and Tammi Gibson, is enjoying its largest class ever, with more than 50 professionals meeting in Orlando every month.

As noted in a short story about Don Hearn, the Ph.D. program has grown steadily over the years. This coincides with a strong growth in research. The Department enjoys strong reputations in many areas, for instance: applied optimization, led by the Center for Applied Optimization and director Panos Pardalos; supply chain and logistics, led by the Supply Chain and Logistics

Engineering Center and co-directors Ravi Ahuja and Joe Geunes; transportation led by partnerships with the Department of Civil & Coastal Engineering's Center for Multimodal Solutions for Congestion Mitigation and ISE associate professor Toi Lawphongpanich; financial engineering, led by the Risk Management and Financial Engineering Lab and director Stan Uryasev; and energy management, led by the Industrial Assessment Center and director Diane Schaub.

In addition to further building on these strengths, I see great opportunities to expand our applications into healthcare. Panos Pardalos has worked with epilepsy and Parkinson's disease detection, Edwin Romeijn and Ravi Ahuja have worked on radiation therapy treatment, and Elif Akçali has worked on hospital capacity planning – but I believe we have only scratched the surface in this area. This is truly an area where engineers can make an impact and help the common good. Also, the addition of Timothy Middelkoop gives us a foothold in bringing large-scale computing resources to solving operations research problems.

As we move our programs and research forward, I believe we need to build stronger relationships with our alumni and industry. I have charged our Advisory Board to help in this endeavor. I would also like to charge

you, our alumni, to get involved with your alma mater. There are many opportunities to help strengthen ISE at UF. Whether it is volunteering to be a guest speaker in classes, arranging plant tours, supporting a senior project, or collaborating on research, there are numerous ways to get involved with the Department.

Additionally, we are compiling stories about our alumni — who they are, what they do, and most importantly, how an ISE degree helped get them there. As many of our alumni end up in what are considered non-traditional fields or "off the beaten path," we want to share these stories with our students to inspire them to be successful, regardless of the chosen career path. I would like to hear your story. Drop me a note in the mail or send an e-mail to alumni@ise.ufl.edu.

I will work to make sure that you hear from us more often. I truly enjoy talking with alumni and hearing about their campus experience. Feel free to contact me if you have something to share or want to get involved. I hope to hear from you. In the meantime, GO GATORS!

Sincerely,



Joseph C. Hartman
Professor and Chair
352-392-1464
hartman@ise.ufl.edu

Ravi Ahuja was a finalist for a 2007 IIE Curriculum Innovation Award for integrating decision support systems into industrial engineering curricula. This comes on the heels of co-authoring two textbooks, *Developing Spreadsheet-Based Decision Support Systems* and *Developing Web-Enabled Decision Support Systems*. He is also engaged in developing cutting-edge operations research-based decision support systems for the railroad industry through his company, Innovative Scheduling.

Farid AitSahlia's book *Elementary Probability with Stochastic Processes and an Introduction to Mathematical Finance* was translated into Russian, appearing in late 2007. He also received funding from UF's Center for Multimodal Solutions for Congestion Mitigation to develop new methods for simulation-based robust signal timing optimization.

Elif Akçali is chairing the Future Practitioner Colloquium for the 2007 INFORMS Annual Meeting in Washington, D.C. She was also named to the editorial board of *IEEE Transactions on Automation Sciences and Engineering*.

Sherman Bai spent the last two years traveling between Gainesville and China in an effort to build the "UF in China" Program. He formally serves as the director of the UF Center for International Studies in Beijing.

Cristián Cárdenas-Lailhacar continues to build relationships with South American universities. He helped establish an energy management research center in Chile and is authoring a text on energy management and the environment.

Joe Geunes formally took over as director of the Outreach Engineering Management program this past summer,

overseeing the program's largest class ever — 56 students. He continues as associate chair of the Department and co-director of the Supply Chain and Logistics Engineering Center.

Joe Hartman is researching equipment replacement and capacity planning models with a grant from the National Science Foundation. He is also editor of *The Engineering Economist*.

Serdar Kirli is on sabbatical this semester. More importantly, he and his wife are awaiting the arrival of their first child.

Toi Lawphongpanich was promoted with tenure this past summer. He continues to work in the area of congestion mitigation through pricing, with applications in traffic networks. He is currently funded by the National Science Foundation and the Center for Multimodal Solutions for Congestion Mitigation at the University of Florida.

Timothy Middelkoop is teaching *Decision Support Systems*, his first class at UF, and coaching an IPPD team. He is setting up new collaborations with other departments to enhance his research in distributed computing.

Panos Pardalos continues to serve as editor of the *Journal of Global Optimization*, *Journal of Optimization Letters*, and *Computational Management Science*. He co-chaired the eighth Conference on Cooperative Control and Optimization in Gainesville. He also co-edited books concerning optimization and data mining in medicine, biosystems and biomedicine.

Edwin Romeijn is currently editing a special issue of *Operations Research* on operations research in healthcare and is co-editing a book on optimization in medicine with Panos Pardalos.

Amar Sapra recently co-authored a textbook with Jack Muckstadt of Cornell University. The book, *Principles of Inventory Management*, will be published this spring for graduate students.

Diane Schaub continues to direct the Department of Energy sponsored Industrial Assessment Center. She plans to take a sabbatical next year in the Austin, Texas, area working with the Department of Commerce sponsored Manufacturing Extension Program, a sister program to the IAC, which provides productivity assessments to manufacturing companies.

J. Cole Smith co-chaired a conference in February in Tucson, Ariz., on integrating optimization with traditional cognitive decision-making science, and is co-editing a book on the same topic. His research has expanded to medical, military and logistics applications over the last year.

R. Keith Stanfill is the director of the Integrated Product & Process Design program, which is in its 13th year. There are 25 projects this year, including an international project with Bayer Environmental Science in Lyon, France. Stanfill also won the ISE Spring 2007 Faculty Superlative Award.

Suleyman Tufekçi is continuing his active participation in the IPPD program, coaching 23 projects thus far. His research in lean manufacturing and supply chain modeling in the electronics service industries are ongoing.

Stan Uryasev continues to research topics in financial engineering while serving as director of the Risk Management and Financial Engineering Lab, editor of the *Journal of Risk*, and lead consultant to American Optimal Decisions.

Emeriti

Jim Burns is enjoying retirement in Gainesville, especially when watching the basketball team from the first row behind the visiting bench. He and his wife enjoy chasing their three grandchildren around town.

Barney Capehart refuses to retire. He completed his third book in information technology for energy managers and edited a three-volume, 190-article encyclopedia of energy engineering and technology. He is writing the international edition of his *Guide to Energy Management* textbook.

Jack Elzinga is enjoying his first semester of retirement and plans to travel extensively with his wife.

Richard Francis continues to publish research articles concerning location models, recently involving aggregation methods. He is currently working with Cole Smith on developing and implementing a dinner-club scheduling model.

Don Hearn is serving a two-year term as the program manager of optimization and discrete mathematics for the Air Force Office of Scientific Research in Arlington, Va.

John Mahoney continues to research, focusing on writing biographies of long-forgotten scientists and ranking major airlines. This spring, he plans to lecture in Turkey on signal flow graphs — after taking a transatlantic cruise.

Dick Patterson and his wife have endowed an annual scholarship to be given to a deserving undergraduate ISE student.

Cristián Cárdenas-Lailhacar, second from right, interacts with students

Joseph Geunes, middle, converses with students



R. Keith Stanfill, left, laughs with a student



Stanislav Uryasev and Panagote Pardalos



Farid AitSahlia, left, and students



Barney Capehart, front left, and Tim Middelkoop, third from right in back enjoy the luncheon



Crosby to "Finally" Retire

Sharon Crosby, financial and office manager of the Department for the past 15 years, is finally retiring from UF. We stress *finally*, as she retired two years ago, but agreed to continue in her role while the Department transitioned to a new chair.

Amazingly, Crosby spent her entire 30-year UF career on one floor. Whether in Industrial & Systems Engineering, Civil & Coastal Engineering, or the College of Engineering administration, she has always been housed on the third floor of Weil Hall. We only hope she is not caught sleepwalking down the hall after retirement, tormented with dreams of another account out of balance.

Crosby will be sorely missed. Her knowledge of College and Foundation affairs is immeasurable, as is her devotion to the Department. While she has no specific plans for retirement, one can bet that Interstate 75 will get more traffic as she and her husband shuttle between grandchildren in Tampa and Gainesville.

Middelkoop Joins ISE

Timothy Middelkoop joined the Department as an assistant engineer this past fall. He received his Ph.D. in 2006 from the University of Massachusetts-Amherst in industrial engineering and operations research, and he spent one year on the faculty at Oklahoma State University before joining UF.

Middelkoop was raised in Tara, Ontario, Canada. He competed in track and field, specifically in the 400 and 800-meter dashes as a student at Florida State University and as a member of the Canadian Junior National Team. He earned his B.S. and M.S. from FSU in 1996 and 1998, respectively. Given his history, we like to say that he ran away from Tallahassee.

Middelkoop's research interests include large-scale distributed computational systems, distributed resource allocation, sensor networks, multi-agent systems, supply chains and integrated design systems.

"I am excited by the opportunity to work with exceptional scholars and students at UF," Middelkoop said.

He went on to say he hopes to explore interesting and challenging computational problems that bring together sophisticated theory and scalable computation to solve important applications.

His wife, Pilar Mendoza, is an assistant professor in the UF College of Education. She has a B.S. and M.S. in physics and a doctorate in educational policy and leadership.

Emeritus Leavenworth Passes

Richard S. Leavenworth, professor emeritus of industrial and systems engineering, passed away in October 2007. He had been battling cancer.

Leavenworth joined the UF faculty in 1966 after completing his Ph.D. in industrial engineering at Stanford University and spending two years at Virginia Tech. At UF, Leavenworth served as acting chair of the Department (1978-79) and as assistant dean for planning and analysis, and he also served on the University senate. He retired from the faculty in 1993.

His research focused on quality control. He co-authored two texts: *Principles of Engineering Economy* (eighth edition in 1990) with Eugene L. Grant and W. Grant Ireson and *Statistical Quality Control* (sixth edition in 1988) with Eugene L. Grant. Both texts were translated into Spanish and distributed throughout the world. His work in quality control led to extensive training and consulting opportunities with numerous industries and labs, including GE, FDOT, Harris Corp., the USDA and the TVA.

Leavenworth was an active member of the Institute of Industrial Engineers, having served as region vice president and vice president for international operations. In 1984, he was presented the Quality Control and Reliability Engineering Division Award of Excellence. In 1999, he won the Wellington Award, presented by the Engineering Economy Division for outstanding contributions to the field. He served as editor of *The Engineering Economist*, a joint publication of IIE and the American Society of Engineering Education, from 1976 to 1981.

Leavenworth, along with former student and 1972 UF graduate David J. McClaskey, endowed the Leavenworth/McClaskey Undergraduate Scholarship Fund. The award is given annually to an undergraduate ISE student.

Leavenworth is survived by his wife, JoAnne.

bering students

ISE remembers two students

Undergraduate industrial and systems engineering students Maria Bahamon, 20, and Daniel Sacks, 19, died in a single-car crash on Saturday, Jan. 26. The students were on an internship in Jackson, Miss., with Entergy. The crash occurred while on a day trip to Biloxi, Miss.

Bahamon had just completed her first semester at UF after transferring from Broward County Community College. Sacks, who hailed from the Florida panhandle, was a sophomore and a graduate of the College's STEPUP program.

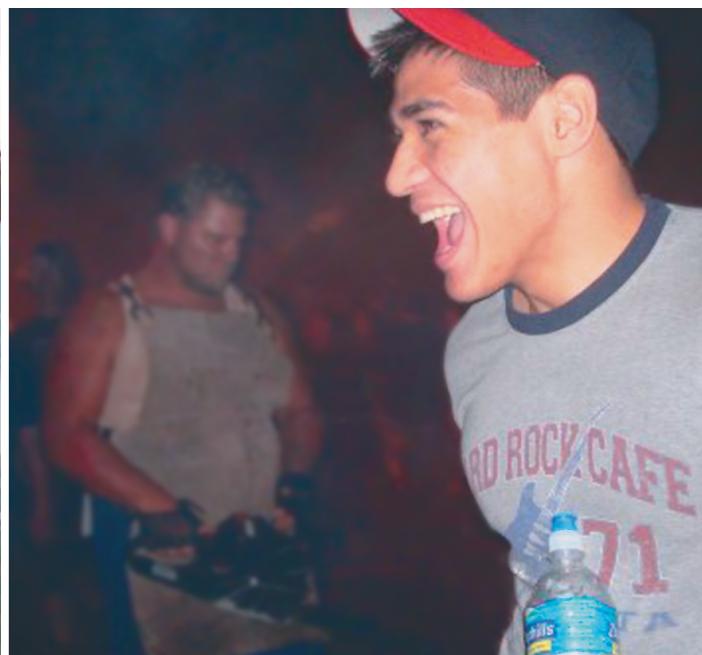
The Department held a candlelight vigil on Monday, Feb. 4, at the Reitz Union Amphitheater.



ISE chair Joseph Hartman, speaks at a candlelight memorial for Bahamon and Sacks.



Maria Bahamon



Daniel Sacks

Students Moving On

THE DEPARTMENT conferred 91 B.S. degrees in 2007, awarding 36 in the fall, 10 in the summer and 45 in the spring. The students took positions with Accenture, Disney, Siemens, Florida Power & Light, Trane, PepsiCo, DHL, Boeing, Northrop Grumman and CSX, among others. Over the past year, the Department also graduated 57 master's students in industrial and systems engineering and 38 engineering management students. These graduate students took positions with SAP, Capital One, Intel, Boeing, Lockheed Martin, Schlumberger and American Express, among others. The Department also awarded 10 Ph.D. degrees in 2007. The graduates, along with their employes are listed here:

Dionne Aleman: University of Toronto

Ismail Bakal: Middle East Technical University (Turkey)

Stanislav Bugygin: Susquehanna International Group

Altannar Chinchuluun: University of Florida (Postdoc)

Clayton Commander: United States Air Force, Eglin AFB

Balachandran Vaidyanathan: FedEx

Michelle Ragle: University of West Florida

Sergey Sarykalin: American Express

Chung-Jui Wang: Teleos Asset Management

Lezhou Zhan: CitationShares

Undergraduate Bachelor of Science Graduates December 2007

Jennifer K. Behrend
Clayton A. Blackwell
John F. Bonaby Jr.
Christopher S. Burns
John P. Chamberlin
Young-Ki Chang
John R. Dickinson Jr.
Joshua E. Francis
Reza Hajikordestani
Catherine E. Keane
Caitlin M. Kurtz
Jose N. Landivar

Edward A. Lavagnino
Jeffrey A. Miller
Lauren R. Milne
Alexander H. Nikdel
Obehi A. Okoiye
Laura G. Oquendo
Doron J. Posner
Kati D. Ramirez
Alexander L. Rangel
Harold B. Ringeisen
Robert J. Rubin
Jose M. Ruiz

Perla B. Ruiz
Timothy P. Sauro
Daniel J. Scheinberg
Tamara Silbergleit
Chris M. Spell
Monica Valencia
Manuel F. Vargas
Sterling R. Wilde
Elizabeth I. Wilkenson
Leonardo A. Williams
Christopher W. Wise
Hans E. Yeakel

Guillermo Moratorio, second from right, speaks to department chair Joseph Hartman and fellow students.

Moratorio Leads Undergrads

Undergraduate senior Guillermo Moratorio is taking advantage of his time on campus — to his benefit and that of his classmates. Moratorio is extremely active as a member of IIE, holding several officer positions, including president. While serving as the group's leader, he sought to make their monthly meetings more beneficial to its members by inviting recruiters to speak, and attendance doubled as a result.

His focus in all of his campus involvement has been to aid his peers and create as many opportunities for them as possible. He has presented a seminar entitled *Career Showcase Crash Course* for ISE students, a three-hour workshop that educates students about UF's career fair and landing a job.

Moratorio has interned with Dura Automotive Systems in Jacksonville and twice with Intel Corp. Most recently, Moratorio helped form, at the request of the chair, the Industrial & Systems Engineering Student Advisory Council. The purpose of the council is to give students a formal outlet to communicate suggestions and concerns about their Department.

This hard work outside of the classroom has brought tremendous recognition. This past spring,



Moratorio was awarded the prestigious UPS Minority Scholarship, which is a national award presented annually to one deserving recipient.

Moratorio is also highly involved in his fraternity, Sigma Pi, currently serving as president. He hosts a "Test Taking Seminar" for all new members. This hour-long session focuses on all the skills and habits a student needs to manage his or her time and succeed in school while being highly involved in extracurricular organizations.

Of course, while helping others, Moratorio hasn't forgotten why he came to Gainesville, as he maintains a perfect 4.0 GPA. He feels he has found his calling, however, in helping other people and is currently applying for a Peace Corps assignment in Africa upon graduation.

Funk to Pursue Graduate Studies in Germany



Michael Funk, left the Department in March after serving as the academic coordinator since August 2002. As a result of Funk's diligence, a viable student services office grew within the Department, thereby giving students at both the undergraduate and graduate level one office to turn to for questions about advising, academic policies, scholarships, internships and jobs.

Funk is a graduate of the University of Florida (B.A. '99) and says he immensely enjoyed his time working with the faculty, staff, students and alumni of the department. He accepted an offer to attend graduate school at the University of Potsdam in Germany. He and his wife are looking forward to the experience.

"This is a little bit of a mixed blessing for me, since I am excited about the opportunity to go back to school and to live in Germany," Funk said. "But I am also sad to leave what I think is the best job on campus. I have enjoyed working with everyone associated with the department — faculty, staff, students and alumni. I will surely keep in touch."

PPD

As a se
Amir Rubin didn't know

As a senior at the UF College of Engineering,

Amir Rubin

didn't know much about the business world.

But when he joined some friends from his fencing team in launching a startup company in his last semester in spring 2003, he did have one qualification under his belt: practical engineering experience. Rubin was on a team that had designed a wireless fire hydrant pressure gauge for an Ocala emergency equipment company. The team did the project as part of the College of Engineering's Integrated Product and Process Design Program, a program intended to immerse students in real-life engineering while providing solutions to corporate and government sponsors.

The wireless monitor allowed fire-fighters to check the water pressure on street hydrants quickly and easily. That seemingly had nothing to do with the startup's main product: a tiny military surveillance drone known as a micro air vehicle, or MAV.

But for Rubin, 26, vice president for core technologies at Prioria — a Gainesville-based engineering and consulting company with 19 employees that specializes in autonomous “intelligent” systems — what mattered was that he had gotten his hands dirty.

"Up until the IPPD program, every engineering assignment you do in school, your professor hands you a piece of paper with a great detailed description of

the assignment," Rubin says. "But when it comes to actual product development, you don't get a nice piece of paper clearly defining your assignment. You have to work with your client and you have to figure out what your client wants — and what you can do."

from laser-guided mortars to lightning detectors

Launched in 1995, the IPPD program is one of a handful of multidisciplinary senior capstone design classes nationwide, says Keith Stanfill, the program's director and Industrial and Systems Engineering faculty member. Most, if not all the others, however, are at private colleges such as Lehigh University, Brigham Young University and Harvey Mudd College, Stanfill says.

At UF, about 150 undergraduates participate in more than two dozen projects per year sponsored by the military, private companies and government agencies. Projects are wide-ranging, from industrial processes to factory upgrades to commercial and medical products.

Over the years, student teams have designed an environmentally friendly bug trap, a lightning-detection system, a blood clot remover, a helicopter simulator, and a safety-shield for a mortar designed to prevent injury should the weapon fire prematurely. Student teams have helped sandwich chain Firehouse Subs engineer

Integrated Products and Process Design students develop more than products — they learn how to operate in a business environment.

Photos by David Blankenship



a better oven for heating sandwiches and appliance manufacturer Sunbeam build a better coffee maker. They've also assisted Dow Chemical with a batch processing challenge and Medtronic Xomed with packaging for a medical nasal sponge. The latter projects were among numerous IPPD projects focused not so much on commercial products, but rather on improving industrial and manufacturing processes.

Companies and other sponsors pay \$20,000 annually to sponsor a team, funds that reimburse departments for faculty time and pay for student travel, supplies or miscellaneous costs. The companies also agree to designate a liaison engineer to work with the team. The company liaison pairs with a UF faculty adviser also assigned to each team, which means all student teams are supervised by at least two engineers.

For sponsors, many of whom have participated for multiple years, that \$20,000 and liaison's time commitment is a bargain compared to the alternative: Devoting a full-time salaried engineer or team of engineers to solving the problem at hand.

Defense contractor General Dynamics has sponsored nearly 20 projects, more than any other. Dean Bartles, vice president and general manager for the company's large-caliber weapons and ammunition division, says he has tapped IPPD teams for everything from improving manufacturing systems to designing artillery shells.

"It's a combination of things," Bartles says. "We like being a good community steward, partnering with universities, but we also find we get an extremely good value for the investment required."

He adds that his engineers also get a lot out of the experience.

"The students have a tremendous amount of energy," he says. "It's extremely refreshing for our people to work with students who don't have preconceived ideas that 'you can't do this,' or 'you can't do that.'"

what looks good on paper...

But the IPPD experience can even be more valuable for students than the companies.

Most students begin the program thinking they will gain hands-on technical experience to supplement their classroom work. While that's certainly true in many cases, the bigger benefit is the "softer" skills related to planning, teamwork, budgeting and other aspects of project management not stressed in engineering classes, alumni say.

Mark Burns, a 1997 electrical engineering graduate, worked with his team to redesign two circuit boards for a company he ended up taking a job with after he graduated. Burns is now the principal engineer for St. Petersburg-based GTS.

"What you learn is the entire design flow, from the start in determining what the design requirements are, all the way through pushing it through production," Burns says. "So it's a well-designed starter project for what you will do the rest of your life."

Chris Birdsall, a 1996 graduate in chemical engineering, says that although he didn't recognize it at the time, the problems he encountered in the IPPD program were strikingly similar to those at the workplace.

With regard to bringing the team together, for example, "At the time, it was like, 'We're on the team. Why can't we find ourselves the time to make this a priority and push it through?'" Birdsall says. "And then you find out this is real life, right?"

Birdsall, now a chemical engineer for a major oil company whose duties include recruiting on campus, says students with IPPD on their resumes have an automatic leg up.

"It makes a real difference in their hiring," he says.

from virtual to real startups

That built-in advantage is great for the majority of students seeking to find work at a corporation or government agency after graduating. Some students, however, have a more entrepreneurial bent.

In 2003, IPPD partnered with UF's Office of Technology Licensing and the Warrington College of Business' Center for Entrepreneurship and Innovation to provide a home for these students through its entrepreneurial program.



Stanfill says the goal is to bring together engineering, business and law students to nurture a UF-developed technology via a virtual company. The two or three teams each year not only do the engineering work of developing prototypes, but also investigate intellectual property issues and craft marketing plans.

"We look for UF inventions that can be mass produced but may need some help in commercialization," Stanfill says.

Although only four years old, the program has already spun off one bonafide company: Enviroflux, which makes a device that monitors groundwater contamination.

"With a traditional IPPD project, there's a potential for a job with a large company at the end of the process, and certainly that's happened," Stanfill says. "Here there's a possibility of getting involved with a startup, and now we're seeing that too."

Prioria, for its part, was formed before the entrepreneurial program was put into place. But even though Rubin might have benefited from the entrepreneurial track, he says he benefited greatly from the introduction to real-world engineering.

"When we first started out, it wasn't drastically different from an IPPD team," he says. "It was a lot of work and a lot of insanity... It didn't give me all the answers, but it did teach me where to look."



Hartman Takes ISE Reins

Photo by Kristen Bartlett Grace

JOSEPH C. HARTMAN was named professor and Chair of the Department of Industrial & Systems Engineering at the University of Florida in July 2007. He comes to Gainesville after 11 years of service at Lehigh University in Bethlehem, Pa., where he most recently served as the Soteria and George N. Kledaras '87 Endowed Chair, associate professor, and department chair of industrial and systems engineering.

"I am honored and excited to be a part of this great Department," Hartman said. "Looking at the talented faculty, motivated students, dedicated alumni, and top-notch programs, this was an easy job to take."

Hartman was raised in the western suburbs of Chicago. He received his Ph.D. (1996) and M.S. (1994) in industrial and systems engineering from the Georgia Institute of Technology after receiving his B.S. (1992) in general engineering from the University of Illinois at Urbana-Champaign. His research focuses on discrete optimization with applications in engineering economics, capacity planning and transportation systems. His work has been supported by numerous companies, including Johnson & Johnson, Norfolk Southern Corporation and UPS, and has also been funded by the National Science Foundation, including the NSF CAREER Award in 1999.

Hartman teaches a variety of courses in the fields of engineering economics, operations management, and operations research. He recently published a textbook for undergraduates entitled *Engineering Economy and the Decision-Making Process*. In 2002, he was named the Outstanding Young Industrial Engineer by the Institute of Industrial Engineers. In 2005, he received a similar distinction from the Lehigh Valley Chapter of the Pennsylvania Society of Professional Engineers. He was named to the Kledaras Chair in the fall of 2003 while on sabbatical with the management science group at the University of Edinburgh in Scotland.

In addition to his teaching and research, Hartman serves as editor of *The Engineering Economist*, a quarterly, refereed publication devoted to problems of capital investment. He is active in the Institute of Industrial Engineers, American Society of Engineering Education and the Institute for Operations Research and Management Science and is currently on the Board of Trustees for IIE as Senior Vice President for Publications. He is also a licensed professional engineer.

Retirements

Hearn Steps Down as Chair, Retires From Faculty

DONALD HEARN retired from the Department in June 2007. He served the College and University for 36 years, the last 10 years as ISE department chair. Hearn joined the faculty in 1971 as an assistant professor after earning his Ph.D. in operations research from Johns Hopkins University. He earned a B.A. in physics from the University of North Carolina-Chapel Hill.

Hearn's teaching and research interests included nonlinear optimization, transportation science and decision modeling. Hearn has held associate editorships for the journals *Operations Research*, *Transportation Science* and *Computational Optimization and Applications*. In 1980, he founded *Optima*, the newsletter of the Mathematical Programming Society.

During his tenure as chair, Hearn oversaw a number of transformational changes

in the Department. These included hiring several of the current ISE faculty and growing the Ph.D. program from seven students in 1997 to more than 50 today. The Department conferred 12 Ph.D. degrees between 1997 and 2003, and it has conferred 32 in the past four years. A majority of these students have been hired as faculty at institutions throughout the world.

Hearn has also garnered a number of awards, including the Excellence in Instruction Award in 1989 and a Professorial Excellence Award in 1996, both from UF. In 2004, he was named a Fellow of the Institute for Operations Research and Management Science.

Hearn continues to serve as the program manager for Optimization and Discrete Mathematics for the Air Force Office of Scientific Research. In that capacity, he allocates funding to researchers across the country trying to solve problems of relevance to the military. He and his wife, Joyce, still make it back to Gainesville frequently from Arlington, Va.



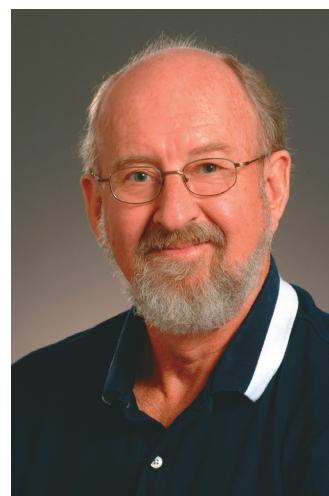
Elzinga Retires After 28 Years at UF

D. JACK ELZINGA retired from the University of Florida faculty in December 2007 after teaching his final section of *Quality Management and Engineering* in the Outreach Engineering Management program — a program he started in 1996 after establishing an engineering management program on campus in the early 1990s. The program has nearly 400 graduates. During his tenure as chair he oversaw the implementation of the Integrated Product & Process Design program and the Center for Applied Optimization.

Elzinga joined the Department as professor and chair in 1979 after spending

12 years on the faculty at Johns Hopkins University. Eighteen years later, he turned over the chair to Donald Hearn, his former doctoral student. Elzinga is a chemical engineer by training, but moved to operations research and industrial engineering while at Johns Hopkins. His teaching and research interests include optimization, location theory, decision analysis and quality management/business process reengineering.

Elzinga and his wife, Ginny, will continue to do what they have done for years — travel. Don't be surprised if you run into them on the French Riviera.



letter from the Advisory Board Chair

FIRST, let me offer a very big thank you to Erin Wallace (IE '82) who served as the ISE Advisory Board chair since its inception in 1999. She was instrumental in the startup and smooth operation of the Advisory Board. Under her leadership, the Advisory Board was heavily involved in guiding the evolution of the undergraduate and master's program curriculum. Erin has stepped down from the chair role, but continues to serve on the Advisory Board and the development committee.

As the new Advisory Board chair, let me introduce myself. I am a 1973 graduate of the ISE department. I have very fond memories of the years I spent on campus. My family has very strong ties to UF, as my wife, Patricia (Nutrition '74), our children Michael (Building Construction '05) and Lisa (Allied Health '02, '04) are also graduates.

I have recently retired after 35 years in industry. I spent the first 20 years of my career with the E.I. DuPont Co. working in synthetic fibers and electronic materials.

The last 15 years were with GKN Driveline (auto parts) leading the information technology and product launch teams in the Americas (Canada to Argentina).

I have served on the ISE Advisory Board for the past 5 years. There are roughly 20 members on the board.

The Advisory Board has enthusiastically accepted Joe Hartman's charge to strengthen the ISE Department's relationships with industry and alumni. At the Advisory Board meeting in early February, the board established the following committees:

Curriculum: Serves as a resource for questions regarding degrees, curricula and assessments of current and future programs.

Industrial Liaison: Serves to foster Department interactions with industry to drive more opportunities for internships, co-op, senior projects, research opportunities and full-time placements of undergraduate and graduate students.

Development: Serves to increase Department resources through interactions with alumni, industry and foundations.

We are currently recruiting alumni and friends to help us develop a full range of activities in each of these areas. Please contact the department chair or myself if you would like to discuss how you can help improve the ISE experience at UF.

I thank you in advance for your help,
Roger Madariaga ISE Advisory Board Chair (B.S.S.E '73)
RogerMadariaga@aol.com

919-608-5273

Alumni Gifts Move Department Forward

The family of **William McClintock** pledged a gift of \$200,000 toward ISE renovations in Weil Hall, which houses the Department and all of its labs and centers. The west end of Weil was renovated years ago, but the east end was never completed. (Many alumni have noted that the 4th floor looks a lot like it did in the 1970s.) The funds will be used to give students, faculty and staff a more inviting and productive workspace. We are looking to increase this gift by \$300,000 so that we can have substantial renovations totaling \$1 million.

Roger Broderick (IE '67) has endowed unrestricted funds totaling more than \$100,000 for the Department. The funds will be used to help lessen the negative impact resulting from the state budget cuts this year and expected cuts next year. This endowment was recently matched by the State, increasing it to more than \$150,000.

Carlos and Olga del Sol (IE '72) have pledged \$42,000 toward a graduate fellowship and support of the STEPUP program. The gift will help the Department further its research mission and grow its Ph.D. program — a leading measure of program quality.



OEM Program Offers Working Professionals the Opportunity to Get an ISE Master's Degree

Technically degreed working professionals have an excellent opportunity to obtain a University of Florida ISE master's degree without a career interruption. Classes in the Outreach Engineering Management Program meet only one weekend per month for a period of 20 months (five semesters). Each semester, students complete one graduate-level Industrial & Systems Engineering course and one MBA course, for a total of 10 courses. A new program begins each August. OEM has a lock-step, cohort design, so all students take the same courses at the same time and get to know each other well. The face-to-face meeting format thus provides excellent team-building and networking possibilities. For many students, OEM is a solution to the problem of whether to get a technical master's degree or an MBA. Students who decide they want both degrees can take advantage of a recently instituted concurrent degree option which takes only 12 months more (32 months total) and awards both a Master of Science degree in Industrial & Systems Engineering and an MBA degree.

Finch Speaks to Undergrads

Alumni roll call in ISE intro class

Tony Arvesu (IE '75)

Al Butler (IE '65)

Ronald Finch (IE '54)

Hunter Jones (IE '80)

Adam Plager (MS IE '95)

Lee Simonetta (IE '72)

If you are interested in speaking in an ISE course, contact Dr. Hartman (hartman@ise.ufl.edu).

Ronald Finch (IE '54) returned to campus in January to address nearly 60 undergraduate ISE students in their introductory course. He told his life story, one where an IE graduate ended up in a non-traditional engineering profession – banking.

After graduating from UF and ROTC and a brief stint with the Civil Service Commission in Mobile, Ala., he was called to duty as an aircraft maintenance officer serving in the Strategic Air Command. He returned home to south Florida after completing his tour and took a job as a loan officer with a small savings and loan in Lake Worth.

After numerous years in that role, he took over as president in 1967. The group grew from one office, 34 em-

ployees and \$20 million in assets in 1958 when he started as a loan officer to 18 offices, 360 employees, and assets of \$860 million in 1987.

The savings and loan merged with Great Western Bank in 1987, the second-largest thrift in the United States. As a senior VP, he was responsible for 150 branches, 1,500 employees, and \$3 billion in assets in south Florida. He retired in 1997 and now resides in Gainesville.

Finch says industrial engineering is “making things work through people,” and explained how he was able to get into the banking/financial field due to his mathematical background. His coursework in accounting, engineering economics, and cost accounting were extremely beneficial to this path. Most importantly, as he had numerous jobs throughout his career, he noted it is critical to “be patient, flexible and always stay positive.”



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Our newly designed ISE Alumni Newsletter has everything . . . except alumni news! Please let us know where you are and what you have been doing since leaving Gainesville. Simply e-mail us at hartman@ise.ufl.edu with your personal and professional updates or clip and return this form to so we can make sure to include bi-annual features and updates of our former classmates and faculty.



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YEAR OF GRADUATION DEGREE MAJOR

NEWS OF INTEREST ABOUT YOUR ACTIVITIES, RECOGNITIONS, ETC.

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Yes, I would like to make a charitable donation to the department. Enclosed is:

\$50

\$75

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