



John Lee has seen firsthand the impact that professorships can have on students and on research innovation. "If Wisconsin is going to continue to be the leader that it has been in education and research," he says, "then gifts like the Emerson professorship are going to be an increasing part of facilitating that."

As the current Emerson Electric Professor in Quality and Productivity Improvement, Lee credits the professorship with improving not only his career, but the careers of his students as well.

Lee believes that the connections made by graduate students at conferences are vital to kick-starting their careers. "To have opportunities after they graduate," he says, "it is really important for graduate students to connect with other researchers and other students."

Emerson professorship funding has given an extra boost to the careers of at least two of Lee's graduate students, Mahtab Ghazizadeh and Joonbum Lee. Funding from the professorship enabled each to travel to conferences—and as a result, each student made contacts that led to careers.

At a conference, Ghazizadeh met with people from Apple Inc. Her presentation and paper led her to become an Apple human factors engineer. Joonbum Lee's award-winning conference paper

impressed MIT enough that he secured a position as a postdoctoral researcher with the MIT AgeLab.

In addition, the Emerson professorship has aided John Lee's own automotive interface design research. Not only did funding allow him to travel to conferences about semi-autonomous vehicles, but it also led to a collaboration

with Toyota Motor Corporation and Stanford University.

This research collaboration—which includes Assistant Professor Bilge Mutlu—focuses on designing next-generation vehicle displays and operating systems, in the hopes of making future vehicles safer and more understandable to the driver. "The Emerson funding made it possible for me to connect with people, and put together this research program which will hopefully solve a challenge society is facing," Lee says. *(Continued on back page)*

Emerson professorship sparks successes



John Lee (center) with the Cognitive Systems Laboratory group, including Mahtab Ghazizadeh (second from left). The lab's research is focused on understanding and improving human-technology systems, including driver interactions with vehicle automation.

In his own words: Harry Steudel reflects on the Emerson professorship



Harry Steudel

"The Emerson Professorship was very valuable and appreciated in that it helped me in providing financial support for my graduate students studying in the area of quality," he says. "The funding also helped me in developing three new senior-graduate level courses in the quality area for our students."

As a faculty member at UW-Madison since 1982, Professor Emeritus Harold Steudel has been active in teaching and research in the area of quality and productivity improvement and integrated management systems.

During his time as the Emerson Electric Professor in Quality and Productivity Improvement, Steudel used the professorship to fund PhD students in several quality-related areas. These projects included designing experiments to understand the effects of different settings on products or process performance, developing applications to measure the level of knowledge work in a job, and investigating ways to prevent defective fabric from entering the production process due to visual appearance.

MESSAGE FROM THE CHAIR

Greetings! In the last few years, the department has seen dramatic growth in undergraduate enrollment. We are more committed than ever to maintaining the accessibility of our program and offering a high-quality education to all industrial and systems engineering majors. With the increases in enrollment come growing pains, of course, especially in a time of budget uncertainty. We are approaching these challenges as engineers, being creative in the department and the college to find ways to use our resources more efficiently, streamlining our processes, and exploring new budget models. Gift funding to the department is an important part of that picture; it complements our existing funding and allows us to continue to offer enriching learning experiences to our students and hire excellent faculty.

I've seen your gifts at work in so many ways this year: For example, a team of our undergraduates created an outstanding model of emergency-room operations that qualified the team as a finalist in the international simulation competition offered by the Society for Health Systems. As a result, the team was invited to present its work at the 2015 Healthcare Systems Process Improvement Conference in Orlando, Florida. The students earned this invitation through the excellence of their work, but the funding that paid for their trip to Orlando to present their work came from alumni and faculty giving. What a worthwhile investment—our students took first place over 30 teams from seven different countries. Look at their beaming faces (*pictured*)!



(From left): **Sam Schmitt, April Soler and Erkin Otles** pictured after the team placed first over 30 teams from seven countries in the student simulation competition.

(see back page). Please read the articles about Emerson Professors John Lee and Harry Steudel to see how this kind of flexible funding can enhance our faculty members' ability to innovate and provide outstanding opportunities to the students in our department.

Finally, I have some special news to share with you: The Department of Industrial and Systems Engineering will be celebrating its 50th year with a reunion on June 3-4, 2016. Preliminary plans include: a reunion kick-off party with brats, beers and Babcock ice cream; presentations and lab tours; meet-and-greet opportunities with faculty, students and alumni; and a gala banquet on June 4. The reunion will also be a unique opportunity for us to honor our outstanding emeriti professors for their contributions to the department and the profession. Mark your calendar, and stay tuned for more details which will be posted on the department's website as they become available.

Vicki Bier

Thank you for your continued support of the UW-Madison Department of Industrial and Systems Engineering.

www.engr.wisc.edu/ie/giving



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Scholarship recipients speak



"Your gift really does make an impact on me and my family, and I am honored to receive the award in the memory of your son, Eric. It is a profound help in moving me one step closer to graduation, and I do hope that someday in the future I will be able to pay it forward to a student in a similar position as myself."—**Aaron R. Strawman**,

Eric Victor Streich Memorial Scholarship



"I truly believe many of the current issues and future challenges in improving healthcare delivery can be addressed through collaborative efforts that connect industrial engineers and healthcare practitioners. I will commit myself to making contributions to health-care improvement and creating opportunities to give back to others."—**Xiang Zhong**,

Rea C. and David H. Gustafson Scholarship



"I found that I made the right choice selecting UW-Madison—it is a very warm and helpful community, and your generous scholarship is a wonderful example of that help! I hope to continue my career in academia and find a faculty position at a leading university like the UW-Madison after my graduation."

—**Mehmet Ali Ergun**,

Richard S. and Harriet K. Fein Scholarship



"I am the first person to get a college degree in an agrarian family from rural India, and I am taking more courses this semester to complete my master's early while working at UW Health part-time. I'm very happy that this scholarship will ease my financial burden. Thank you for making this scholarship possible."—**Kumara Devan Rathinam**,

Vinod K. and Gail Sahney Scholarship



"My parents try to save as much as they can for my tuition, and I work part-time as a tutor every semester to help pay for my tuition, but the Stoelting Scholarship will help pay for my tuition. There are no words to express my gratitude for this scholarship. I hope that someday I will be able to help students out financially as you have."—**Jie Wu**,

Roland E. Stoelting Scholarship



Here's a chance to show your Badger engineering pride: We're excited to announce our online store, where you can purchase College of Engineering gifts and apparel. Check out our selection today at store.engr.wisc.edu!

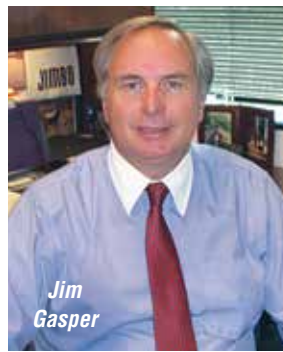
Alum keeps on giving

To Jim Gasper, his UW-Madison education is something that he continues to benefit from year after year. That's why the alum continues to donate to the industrial and systems engineering annual fund. "The way I learned to approach problems and engage people was given to me for my whole life," he says. "As I continue to use these tools, I think I owe something to the university so other students can benefit as well. It's something I continue to do because the need doesn't go away; it exists and continues to grow."

Gasper knew at a very early age that industrial and systems engineering would be a good fit for him. Growing up on a farm outside of Two Rivers, Wisconsin, he says he had the opportunity to creatively problem solve solutions to daily problems on the farm. "My interest in industrial engineering came about from the exposure I had to manufacturing and to systems from a plant-to-manufacturing standpoint," he says. "I think industrial engineering gives you a broader view of things; an opportunity to look at the entire process."

Graduating with a BS degree in 1978, Gasper is currently the vice president of network services for Optum, the health services business of UnitedHealth Group. He credits his coursework with preparing him for success in the healthcare field. "I frequently encounter challenges to help improve care-delivery, quality and cost-effectiveness as a way to make the health system work better for everyone," he says. "Those were the kinds of problems my professors—Dave Gustafson, Gerry Nadler and many others—used as examples, and I get to deal with them every day."

Operational excellence in healthcare has become even more important as more participants enter the system thanks to the U.S. Affordable Care Act. Gasper says market forces, consumer expectations



and legislation have challenged the healthcare system in new ways because stakeholders needed to provide broader services to a larger populace, all while delivering positive outcomes and maintaining cost-effectiveness. "One of the ways I support this in my network services role at Optum is to provide integrated systems and services for call centers," says Gasper. "We try to make call centers more efficient, so our members get faster responses to questions and can be connected with healthcare services faster, more efficiently and at a lower cost."

A combination of proximity, affordability and prestige brought him to UW-Madison and Gasper believes that the training he received and the prestige of a UW-Madison education opened a lot of doors for him right after graduation. "When I graduated, I had eight tremendous job offers from across the country as a result of the credentials that the University of Wisconsin-Madison gave me," says Gasper. "Serving the healthcare system has been my life's work and my education got me there."

Gratz brings business hustle to industrial advisory board

Eli Gratz knows there are multiple ways for alumni to give back to UW-Madison. Gratz, who earned his bachelor's degree in 2007, blazed a trail for himself through entrepreneurship and what he calls "business hustle," and now is trying to help others do the same.



Gratz is currently a product manager for the mobile team of AvantCredit, a Chicago-based Fintech company, focused on lowering the barriers and cost of lending. Gratz joined the ISyE industrial advisory board in 2014 and says he's excited to be able to voice a different perspective in the board's discussions. "One way I can help now is to show an alternative career path," he says. "Most of the people on the board are in very established, traditional kinds of careers. I'm doing something else, a different way to spin the same degree."

While in school, Gratz recalls Professor Gregg Vanderheiden had him design accessibility features on the yet-to-be-released iPhone. "It honed my ability to break down something that's complicated into a series of steps to make it intuitive," he says. "The process is about answering, 'What does someone need to understand about this

product in order to use it quickly and easily?'"

While still a student, he started a road-trip business with a friend, and planned various student organizations' road trips to sporting events. "I started my first business hustle while still going to class," says Gratz.

"I got the chance to try out a lot of ideas and find my own way because UW-Madison isn't overly prescriptive."

After graduating, Gratz joined one of GE Healthcare's management development programs, but began developing his own mobile applications during nights and weekends. At the time, he actively engaged in start-up and technology meetup groups in Chicago and Milwaukee.

Even with GE on his resume, it was his mobile apps that led to his first startup experience at Chicago-based VS Networks. "They liked that I had created a mobile app from beginning to end. That it was something already in existence," says Gratz. "And that I had to think through planning, design, development, execution and support."

A year into that job, Gratz became co-founder of Walkby, a venture-backed startup company. The company created a

smartphone application platform that connected the inventory of local boutiques and stores with interested local consumers. Even though the apps worked well to maintain the relationship between merchants and current customers, Gratz admits the apps did not drive new customer traffic, and Walkby eventually folded.

Despite the setback, he used the experiences and relationships from Walkby to inform his next job—starting a mobile development consultancy with the core engineering team from Walkby. The team worked primarily on Groupon's iPhone and Android apps, and eventually brought that team to his current position at AvantCredit. "Every role I've gotten required the one before it," Gratz says. "Running the mobile team for a hyper-growth startup is the best job I could have gotten, but had I not done those jobs in order, it wouldn't have happened. Going to UW, where I got to experiment with a lot of different types of business hustle, gave me the sense of how to juggle a lot of activities and see what works."

In addition to offering his time by serving on the industrial advisory board, Gratz is actively seeking UW-Madison students with business hustle for internships and jobs at AvantCredit. "We love hiring people who've shown they can break down problems and build real solutions, whether technical or not," he says. "We've got tons of opportunity for those kinds of people at Avant."



Save the dates!

Each year, the College of Engineering hosts several alumni events around the country. Save the date for an event near you—and if you'd like us to add you to the invitation list for a specific event, please contact Stephanie Longseth, (608) 265-3496 or slongseth@wisc.edu.

January 13—Houston, TX

February 18—Bonita Springs, FL

March 26—San Francisco, CA

May 21—Seattle, WA

June 26—Chicago, IL

July 16—Fox Valley, WI

August 20—Twin Cities, MN

September 15—Milwaukee, WI

October 4—Washington, D.C.

October 16—Madison (*Engineers' Day*)

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Emerson professorship *(Continued from front page)*



John Lee

Undergraduate students also benefit from Lee's Emerson professorship. He used professorship funds to implement more efficient ways for students to learn, including creating a volume of testing materials to challenge students and drive their recall and retention. "Students have lots to do, and helping them learn faster is important," he says. "Learning more efficiently, I think, is what all industrial engineering professors should care about."

The flexibility professorships allow is a vital piece of both student success and research innovation. "I think the more flexibility that comes from funds like professorships," says Lee, "the more innovative things professors will be able to do."

Investing in faculty excellence is a college priority—and one way we can attract and reward star faculty is through endowed professorships. Currently, approximately one-quarter of our engineering faculty members hold a professorship or chair—and our goal is to greatly increase the number of endowed professorships for both junior and senior hires.

A gift to the university will enable us to realize that goal: Alumni John and Tashia Morgridge made a landmark \$100 million gift to UW-Madison in support of faculty excellence—and that gift provides a dollar-for-dollar match to other donors who make a gift to endow a professorship (\$1 million), a chair (\$2 million) or a distinguished chair (\$3 million).

**To make a gift, contact Aaron Mullins,
(608) 890-1486
aaron.mullins@supportuw.org**



We are going to be celebrating 50 years! Join us for the reunion—June 3-4, 2016. More details in the next issue.