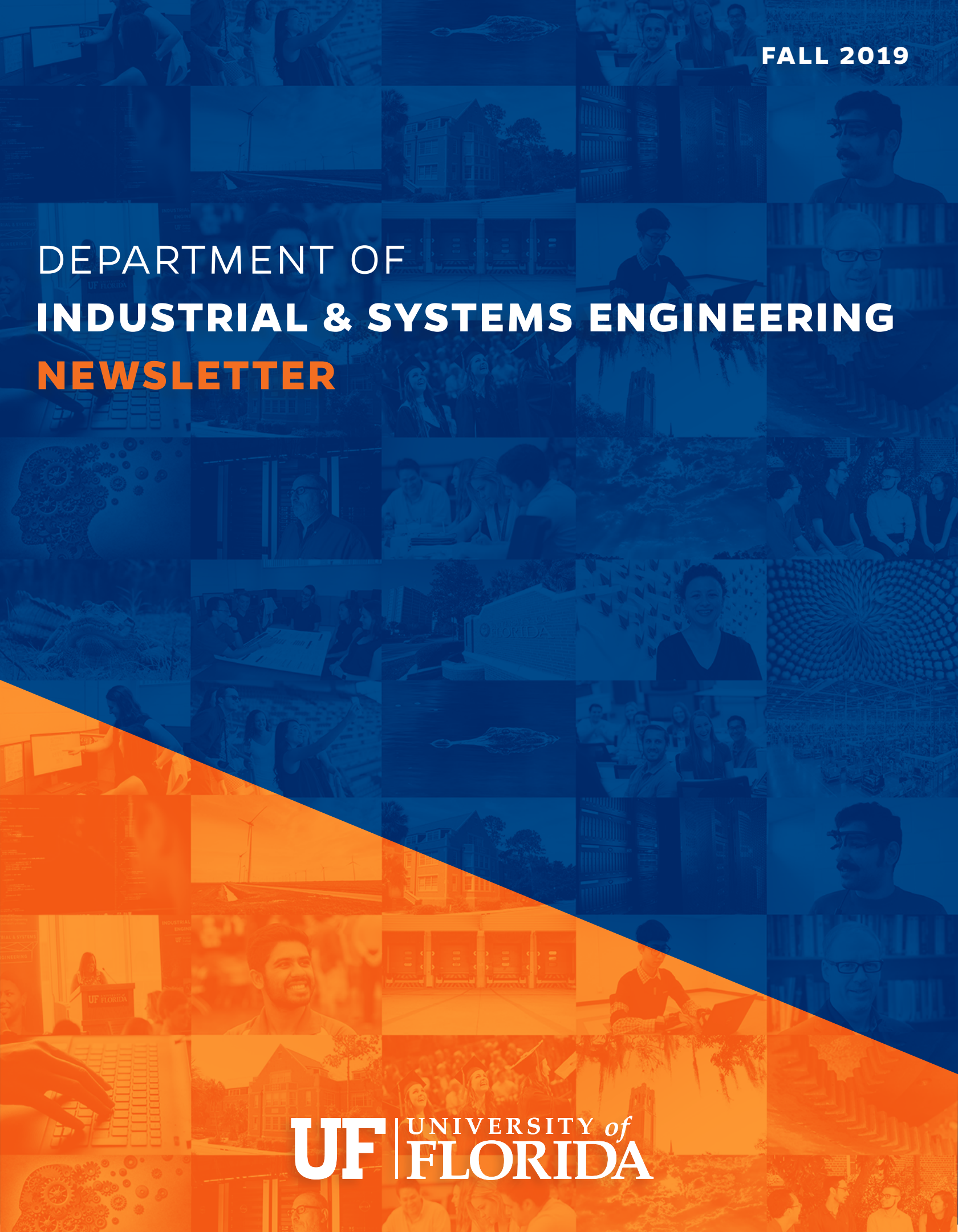
FALL 2019

DEPARTMENT OF
INDUSTRIAL & SYSTEMS ENGINEERING
NEWSLETTER



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CHAIR'S MESSAGE

DAVID KABER, PH.D.
CHAIR
DEPARTMENT OF INDUSTRIAL & SYSTEMS ENGINEERING

Dear Friends,

With this newsletter we are headed into another fall semester at UF. The temperatures in Gainesville are cooling and the mornings and evenings bring beautiful Florida sunrises and sunsets. In what seems like such a short period of time, yet another academic year has passed. The 85th anniversary year for the department has been one of major change and development. Our outstanding faculty, staff and advisory boards have been at the core of the department's progress.

Since our last update, we have hired another new assistant professor in the human systems engineering area (Nicholas Napoli, Ph.D., from Univ. of Virginia) and two new permanent lecturers in operations research (Sanaz Motamedi, Ph.D., from Univ. of Rhode Island) and systems engineering (Mengyu Li Ph.D., from Dalhousie Univ.). The new hires also represent an enhancement in the caliber of our instruction with approximately 90% of our sections being taught by permanent ISE faculty.

As many of you may know, the department developed and implemented a new internal Collaborative Research Seed Funding (CRSF) program to promote faculty collaboration across different areas of research. This past year, the CRSF Program made three $10K awards to teams of two faculty members jointly supervising at least one Ph.D. student in intra-disciplinary research. This program is intended to provide a platform for expanding department research towards our vision of being an "engine" for scientific contributions with societal-level impact.

We have seen an increase in alumni and corporate support this past year. The contributions of individuals and companies move us closer to our vision of being a "digital" department making use of advancing computing technology to best support needs, interests and training of students. The resources also allow our faculty to generate research results that make organized work and activities better for people and improve the quality of life. We are fortunate to have such a strong alumni base as well as strong connections with industry.

We enjoy sharing the important developments of the department and we hope that you enjoy reading of our good news. On this note, we welcome the opportunity to hear about the highlights of your year. As I mentioned in our spring letter, please communicate directly with the department via our UF ISE Friends email address (friends@ise.ufl.edu). Of course, we will continue to keep you posted on our upcoming events and faculty and student accomplishments through the department's electronic and print media channels.

Thank you once again for your continuing interest and support of UF ISE.

Go Gators!

David Kaber

David Kaber, Ph.D.

BY THE NUMBERS

#12

BEST PUBLIC INDUSTRIAL & SYSTEMS ENGINEERING GRADUATE PROGRAM
2020 U.S. News & World Report

467
UNDERGRADUATE ENROLLMENT

143
GRADUATE ENROLLMENT

86%
OF GRADUATING STUDENTS FOR THE 2018-2019 ACADEMIC YEAR COMPLETED AT LEAST ONE INTERNSHIP.

43%
WOMEN

DEGREE PROGRAMS

Bachelor of Science in ISE
Master of Science in ISE
Master of Engineering in ISE
Ph.D. Program in ISE with tracks in:
Operations Research
Human Systems

FACULTY

20
FACULTY

15
TENURED/TENURE TRACK FACULTY

9
FACULTY MEMBERS HIRED IN 2018-2019

NEW FACULTY HIRES

JOIN US IN WELCOMING THE NEW ISE FACULTY

MENGYU LI, PH.D.
Lecturer

Operations Research in Health Care, Stochastic Optimization, Data Analytics, and Teaching Effectiveness

SANAZ MOTAMEDI, PH.D.
Lecturer

Human Factors, Statistical Methods, Data Analytics, User Experience, Transportation Safety, Design of Experiment, Systems Engineering, Technology and Engineering Management

NICHOLAS NAPOLI, PH.D.
Assistant Professor

Signal Processing, Pattern Recognition, Physiology Response Analysis, Machine Learning and Data Mining

MOSTAFA REISI GAHROOEI, PH.D.
Assistant Professor

Efficient Methodologies and Algorithms for Modeling and Monitoring Industrial Systems with High-Dimensional, Heterogeneous Data, Adaptive System Modeling and Data Fusion

XU SUN, PH.D.
Assistant Professor

Stochastic Modeling and Optimization, Multi-queuing Systems in Healthcare, Analysis and Control of Urban Transportation Systems

XIAOCHEN XIAN, PH.D.
Assistant Professor

Big Data Modeling, Monitoring and Prediction, System Informatics and Data Analytics, Statistical Learning and Data Mining Applications

“THROUGH SUBSTANTIAL RESOURCES PROVIDED BY THE HERBERT WERTHEIM COLLEGE OF ENGINEERING, THE ISE DEPARTMENT HAS RECRUITED OUTSTANDING NEW FACULTY IN APPLIED OPERATIONS RESEARCH, DATA ANALYTICS AND HUMAN-SYSTEMS ENGINEERING, AND WE ARE EXCITED FOR CONTINUED EXPANSION IN THE COMING ACADEMIC YEAR.”

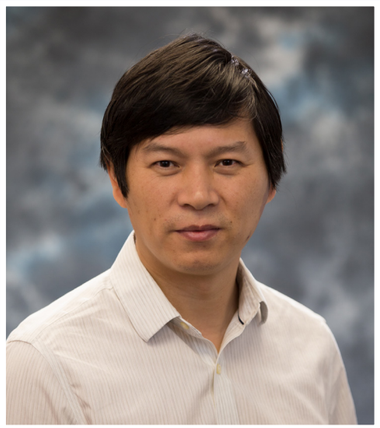
- David Kaber, Ph.D., Department Chair

XIANG ZHONG USES SYSTEMS ENGINEERING TO TRANSFORM HEALTHCARE PRACTICES

Industrial & Systems Engineering Assistant Professor Xiang Zhong, Ph.D., has received support from the Agency for Healthcare Research and Quality (AHRQ) for her research methods to improve specialized medical care for people with serious illness, also known as palliative care.

The Acute Care Learning Laboratory project has a focus on reducing threats to diagnostic fidelity in critical illness cases and is specifically aimed at improving the care and safety of patients before, during and after ICU admissions or transfers. As a systems engineer, Dr. Zhong, along with Mayo Clinic physicians from the Multidisciplinary Epidemiology and Translational Research in Intensive Care Lab, will work collaboratively to develop a "Control Tower" to inform the design, development, evaluation and refinement of the solutions to diagnostic error and delay.

The multidisciplinary team plans to re-invent the current organizational work design with three overall goals, including: enabling a palliative care specialist to deliver medical care effectively, efficiently educate ICU providers of best palliative care practices, and facilitate communication between providers and family members in order to aid families in making informed decisions. The anticipated goal of this approach is to improve patient outcomes, symptom control and satisfaction, reduce time to necessary specialist interventions, and have a measurable reduction in inpatient hospital mortality. Measurable patient outcomes include clinical results such as mortality, as well as improved patient-clinician interactions and patient and family satisfaction.



YONGPEI GUAN ELECTED AN IISE FELLOW

Yongpei Guan, Ph.D., a UF ISE professor, has been named Fellow of the Institute of Industrial and Systems Engineers (IISE) for his significant contributions to the industrial and systems engineering discipline. IISE Fellow is the highest classification of membership that recognizes outstanding leaders in ISE.

Guan's contributions to ISE research include methodological innovations for data-driven risk-averse stochastic optimization, and modeling innovations and algorithm developments for energy systems operations. He was the founding president for the Energy Systems Division of IISE. He served as a general chair for the ISE Research Conference in 2014. He currently serves as an IISE Transactions Department Editor. At UF, Guan has served as the faculty advisor for the IISE student chapter, a role for which he recently received the 2018 IISE Outstanding Global Faculty Advisor Recognition Award.

ALUMNI SPOTLIGHT: SCOTT ELLYSON

A natural problem solver, Scott Ellyson knew that engineering seemed like the perfect fit when it came time to choose a college major, but it was his experiences at the University of Florida that led him to focus on industrial and systems engineering (ISE).

During an Intro to Engineering course offered to incoming freshman, Ellyson (B.S. '93) discovered the versatility that ISE provides.

Ellyson is the founder and CEO of East West Manufacturing, an offshore contract manufacturing company headquartered in Atlanta, Ga., with operations in North Carolina, China, Vietnam, India and Costa Rica. Currently, East West produces and distributes over 2,500 high quality industrial products for North American and European companies.

As an innovator, Ellyson has always been eager to discover the most efficient and economical solution to any problem. After graduating from UF, he accepted a part-time job with a quickly growing company that was later acquired by Boston Scientific, where he was responsible for figuring out the overall cost of manufacturing medical devices on-site at their facility. Soon after, Ellyson's ability to think quickly on his feet and develop effective solutions landed him a full-time position, and his career took off from there.

Shortly after that, at just 26 years old he decided to take a leap of faith and started his own manufacturing company in Hong Kong, developing aftermarket products for Toyota and General Motors, among others.

Eventually, Ellyson sought out his next challenge and went on to become the vice president of Offshore Manufacturing and Logistics for a company known as DiversiTech Corporation, a leading U.S. manufacturer and distributor of HVAC components and supplies. It was this role that led him to set up a separate company as a spin-off from DiversiTech, and in 2001 Ellyson established East West Manufacturing.

Ellyson credits much of his successful career to his academic experience and the technical expertise he gained during his time at UF. He also credits his wife Sarah Ellyson, whom he met at UF, for being extremely influential along the way. He believes it was the soft skills he learned while at UF that helped him become the leader he is today.

"I remember having to give a speech in a general public speaking class, and I was so terrified that I froze up, and it scared me to the point that I realized I couldn't live with that defeat. I started to take more classes, and eventually taught classes on public speaking. Any opportunity I had to speak, I took advantage of it, and that gave me confidence and helped me tremendously when it came to interacting in a professional setting."

SCOTT ELLYSON
B.S. ISE 1993

FOUNDER & CEO
EAST WEST MANUFACTURING

It's this learned skill, Ellyson says, paired with the undergraduate ISE curriculum and industry experience that will set students up for success as they approach the workforce.

"UF's engineering program taught me how to approach and solve problems effectively and efficiently, which has served me throughout my entire career. One thing I wish I had done a little more of, is worked in the summers and shadowed professionals or worked more internships to gain exposure to areas that I was interested in," he said. "You'd be amazed at how many people are willing to open their doors and help students."

To read the full story, visit:
www.ise.ufl.edu

UF Herbert Wertheim College of Engineering
Department of Industrial & Systems Engineering
UNIVERSITY *of* FLORIDA

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WWW.ISE.UFL.EDU

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UPCOMING EVENTS

INFORMS Annual Meeting

October 20-23, 2019
Washington State Convention Center
705 Pike St, Seattle, WA 98101
Exhibit Booth #45

HFES Annual Meeting

October 28-November 1, 2019
Sheraton Grand Seattle
1400 6th Ave, Seattle, WA 98101
Exhibit Booth #8

We hope to see you at one of the upcoming conferences!