



Industrial Engineering  
Newsletter Spring 2023

# OPTIMUM

**ENGINEERED FOR  
WHAT'S NEXT.**



Cullen College of Engineering  
UNIVERSITY OF HOUSTON

# Letter from the Chair



**Dear Colleagues,**

Greetings and I hope that the spring semester has treated you well! I am proud to share some of the highlights and exciting accomplishments we have accomplished over the last six months. We recruited high-caliber faculty, significantly enhanced two new programs (B.S. degree in Systems Engineering and Master's degree in Engineering Management) and connected with outstanding alumni. I encourage you to reach out and visit our department when able, we are always seeking new and exciting partnerships.

Warm Regards,

**Gino J. Lim, Ph.D.**

R. Larry and Gerlene (Gerri) R. Snider Endowed Chair in Industrial Engineering  
Cullen College of Engineering  
University of Houston

## UH IE **BY THE NUMBERS**



**ENROLLMENT**

(FALL 2022)

**133** UNDERGRADUATE  
STUDENTS

**260** GRADUATE  
STUDENTS



**DEGREES  
AWARDED**

(FALL 2022)



**24** B.S.



**42** M.S.



**1** PH.D.

# IE PROFESSOR PURSUES

## OPTIMIZED REMANUFACTURING RESEARCH

**Yisha Xiang** joined the Cullen College of Engineering as an Associate Professor in the Industrial Engineering Department for the Fall 2022 semester. Prior to joining UH, Xiang was E. L. Derr Assistant Professor of Industrial, Manufacturing and Systems Engineering at Texas Tech University. She had also taught at Lamar University and internationally. Xiang earned her doctorate and M.S. from the University of Arkansas in 2009 and 2006, respectively, and her B.S. from the Nanjing University of Aeronautics & Astronautics in China.

Xiang's research was selected for an NSF CAREER award in April 2020, while she was at Texas Tech. The funding supports early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. The grant, "Enhancing Environmental and Economic Sustainability of Additive Manufacturing-based Remanufacturing," is for \$508,805 and runs through an estimated end date of August 2025.

Xiang said the research aims to enhance the environmental and economic sustainability of "additive manufacturing-based remanufacturing." Broadly, remanufacturing is the rebuilding of a product to the specs of the original manufactured product using a combination of reused, repaired and new parts. ⚙️



### IISE MEMBER LEADS URBAN, TRANSPORTATION, INFORMATICS AND LOGISTICS GROUP AT THE UNIVERSITY OF HOUSTON

**Dr. Zhijie (Sasha) Dong** is an associate professor in the Supply Chain and Logistics Technology program in the Cullen College's new Technology Division. Dr. Dong is a senior member of the Institute of Industrial and Systems Engineers (IISE), a member of INFORMS and a member of the Transportation Research Board. Dr. Dong leads the UTIL (Urban, Transportation, Informatics and Logistics) Group at the University of Houston. Dr. Dong's current research focuses are supply chain and logistics management, disaster resilience and emergency management. Before becoming an assistant professor, Dr. Dong worked for FedEx Freight as a Senior Operations Research Scientist. Dr. Dong earned her doctorate from Cornell University, M.S. from Columbia University and B.S. degree from Nanjing University. ⚙️



## ZHIJIE (SASHA) DONG



## DEPARTMENT HIGHLIGHTS

# MASTER'S OF ENGINEERING MANAGEMENT A FULLY ONLINE OFFERING



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INDUSTRIAL ENGINEERING



Students can take an online 30-credit hour master's in Engineering Management through the University of Houston's new UH Extend initiative. UH Extend is designed for students seeking fully online degree and certificate programs that are both convenient and affordable.

Engineering Management (EM) bridges the gap between engineering and technological problem-solving abilities of engineers with administrative skills for leading the day to day operations of today's complex organizations within the current global economy. The scope of EM includes engineering principles, business functions and advanced technologies. ⚙️

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*Pictured: Elizabeth Richardson at a UH swim meet*

## ELIZABETH RICHARDSON NAMED CULLEN COLLEGE OUTSTANDING SENIOR



For **Elizabeth Richardson** – the Outstanding Senior at the Cullen College of Engineering for 2022-23 – it’s been such a productive four years at the University of Houston that it’s hard to know where to start when it comes to summing them all up.

Her success in the classroom while studying Industrial Engineering has led her to being on the Dean’s List since she enrolled in the Fall of 2019. She’s also been an active member in the student chapter of the Institute of Industrial and Systems Engineers (IISE), serving as the group’s vice president. She has parlayed her learning into internships at Northrop Grumman in Utah and TechnipFMC in Houston.

But unlike some of her peers, Richardson has done this while having a grueling, physical schedule outside of the classroom as well. Richardson has been a member of the

Division I Swimming & Diving team for all four years, which has meant a 20-hour weekly practice schedule, often starting at 6 a.m. in the water. She is now a captain for the team, which has won six straight American Athletic Conference titles through 2022.

Richardson acknowledged that effort and hard work when she reflected on being named this year’s Outstanding Student.

“Being the recipient of the Outstanding Senior award is a huge honor, one that I couldn’t begin to express my gratitude for,” she said. “This award makes all the early morning practices and late night grinds worth it.” ⚙️



*Pictured: Viraj Lele*

## IE GRAD PROVIDES A CASE STUDY FOR IMPORTANCE OF LOGISTICS

A graduate of the Industrial Engineering master's program at the University of Houston's Cullen College of Engineering is now leading a team optimizing the operational dynamics at DHL as the firm continues to grow in size and revenue.

**Viraj Lele** earned his Master of Engineering in 2017, after completing his undergraduate studies at the University of Mumbai in 2014 with gold medalist distinction. He has also since earned a Master of Science degree from Penn State in 2020. This knowledge has merged with his experience in the field in order to be a valued member to perform critical roles at DHL Supply Chain. Lele's work has been recognized in several different ways. He was interviewed for an article on Artvoice in January 2023 about the growth of DHL. Lele also contributed three papers to the International Journal of Science and Research one of which was while at UH. Lele is currently leading other projects with managing supervisors, operations managers and associates in making their facility move towards LEAN processes. He likes to keep a mantra in mind when confronting problems.

"When challenges are high, only achievers rise above it," he said. ⚙️



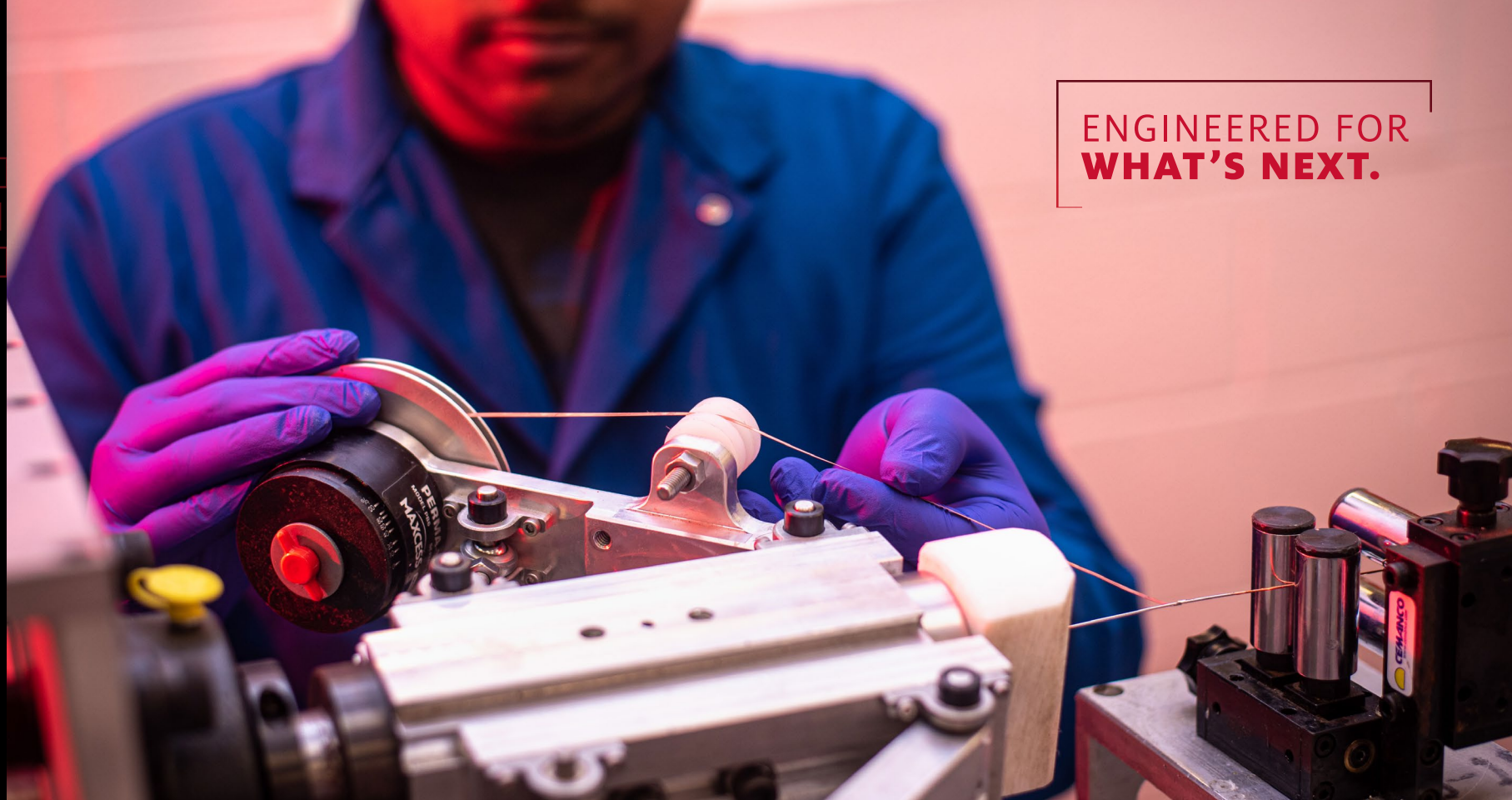
# CULLEN

## COLLEGE

### The University of Houston

#### Cullen College of Engineering

The University of Houston Cullen College of Engineering addresses key challenges in energy, healthcare, infrastructure, and the environment by conducting cutting-edge research and graduating hundreds of world-class engineers each year. With research expenditures topping \$40 million and increasing each year, we continue to follow our tradition of excellence in spearheading research that has a real, direct impact in the Houston region and beyond.



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**WHAT'S NEXT.**





**Cullen College of Engineering**

UNIVERSITY OF **HOUSTON**

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