



RESEARCH OPTIMUM MILESTONES

IN INDUSTRIAL ENGINEERING

UNIVERSITY of
HOUSTON

CULLEN COLLEGE of ENGINEERING
Department of Industrial Engineering

Letter from the Chair



Dear Colleagues,

I hope that this message finds you safe and in good health. Despite the challenges presented by the novel coronavirus, our department has been hard at work in our continued pursuit of excellence in academia and research.

I invite you to read through the following research breakthroughs, newly funded projects and department success stories. If you would like to learn more about how to support a project or collaborate with our department, do not hesitate to let me know.

Warm Regards,

Gino J. Lim, Ph.D.

Chair, Department of Industrial Engineering
Cullen College of Engineering
University of Houston



TOP 50

INDUSTRIAL
ENGINEERING
PROGRAM IN THE U.S.

*Source: US News & World Report

TOP 100

ENGINEERING SCHOOLS
IN THE NATION

*Source: US News & World Report



22:1

UNIVERSITY-WIDE
STUDENT TO FACULTY RATIO



125

UNDERGRADUATE
STUDENTS

133

GRADUATE
STUDENTS

258

TOTAL STUDENTS
IN DEPARTMENT

*Student Totals are from Fall 2019 & Spring 2020



35M+

IN RESEARCH
EXPENDITURES AT THE CULLEN
COLLEGE OF ENGINEERING



80%

OF UH ENGINEERING
UNDERGRADUATES ARE EMPLOYED
WITHIN 1 YEAR OF GRADUATION



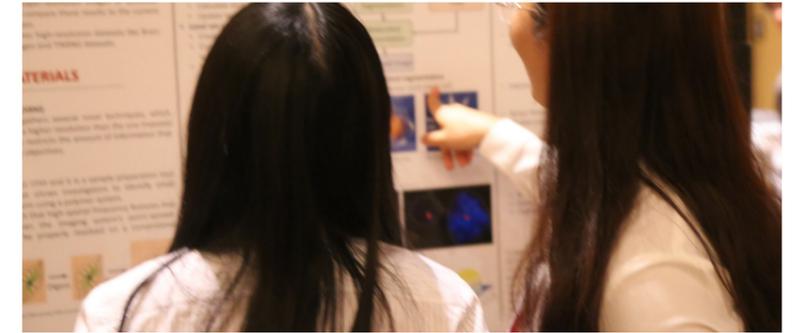
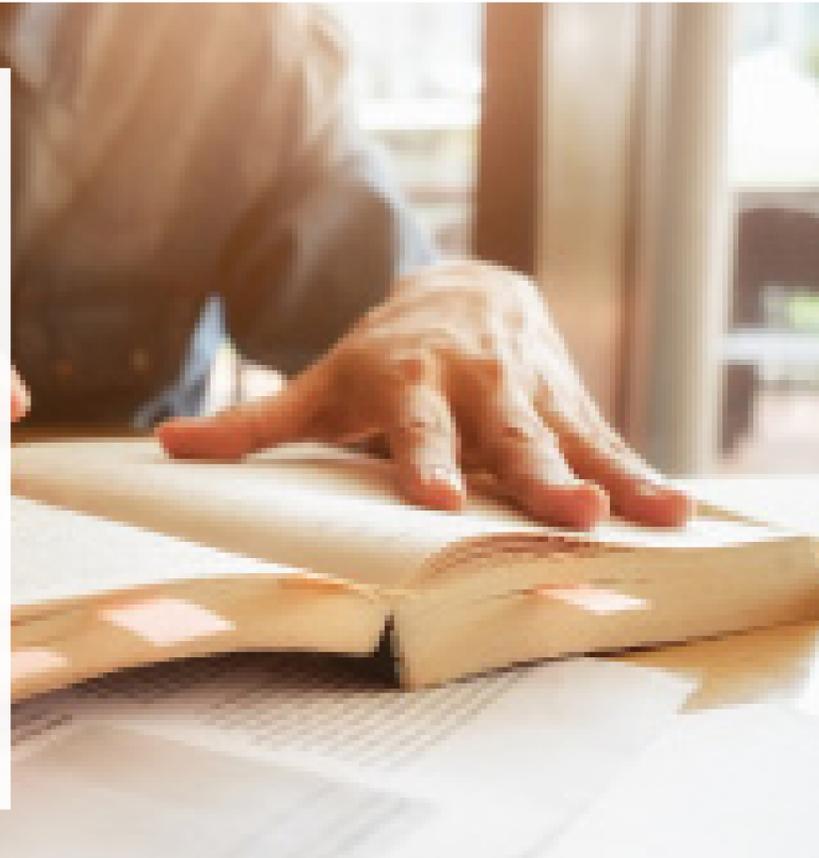
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RESEARCH LABS, CENTERS,
INSTITUTES & INDUSTRY CONSORTIUMS

IE ALUMNA HONORED AT 2020 ENGINEERING ALUMNI ASSOCIATION GALA



Nancy Currie-Gregg (Ph.D. '97) was honored at the 2020 Engineering Alumni Association Gala. She was this year's recipient of the Distinguished Engineering Alumni Award. Over the course of her career, Currie-Gregg has been an engineer, United States Army officer and a NASA astronaut. While at NASA, she was involved in four space shuttle missions: STS-57, STS-70, STS-88, and STS109. In total she has clocked over 1,000 hours in space. The Engineering Alumni Awards program was established in 1987 to recognize alumni, faculty and friends of the University of Houston Cullen College of Engineering and the Engineering Alumni Association for significant contributions to society and the profession. The recipients are honored at the annual engineering alumni awards gala, normally held each year in June. Due to the ongoing coronavirus pandemic, this year the event was held virtually on August 13. The event featured celebratory toasts, interviews with the award winners and offered participants the opportunity to show off their red carpet looks. The broadcast can be viewed on the Cullen College's official YouTube channel.



STUDENTS SOLVE REAL WORLD PROBLEMS FOR INDUSTRY

Teams of Cullen College industrial engineering students, most of them seniors about to graduate, work each spring to polish final details on their industry collaboration projects. The well-known Engineering Systems Design course, also known as the capstone class, is their chance to demonstrate the theory and skills gained during their undergraduate careers. Strategic partners this year included Hewlett Packard Enterprises, Cameron, Cintas, HCA Healthcare, H-E-B, M.D. Anderson Cancer Center, Siemens and TechnipFMC.



UH IE DEPARTMENT OFFERING **NEW**
UNDERGRADUATE DEGREE AT
UH AT KATY FOR FALL 2020

In a significant move to expand higher educational offerings across the Houston region, the University of Houston Industrial Engineering department is now offering a new competitive undergraduate degree program in Systems Engineering at the UH at Katy instructional site.

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MANAGEMENT

AND BRIDGE THE GAP BETWEEN

ENGINEERING &
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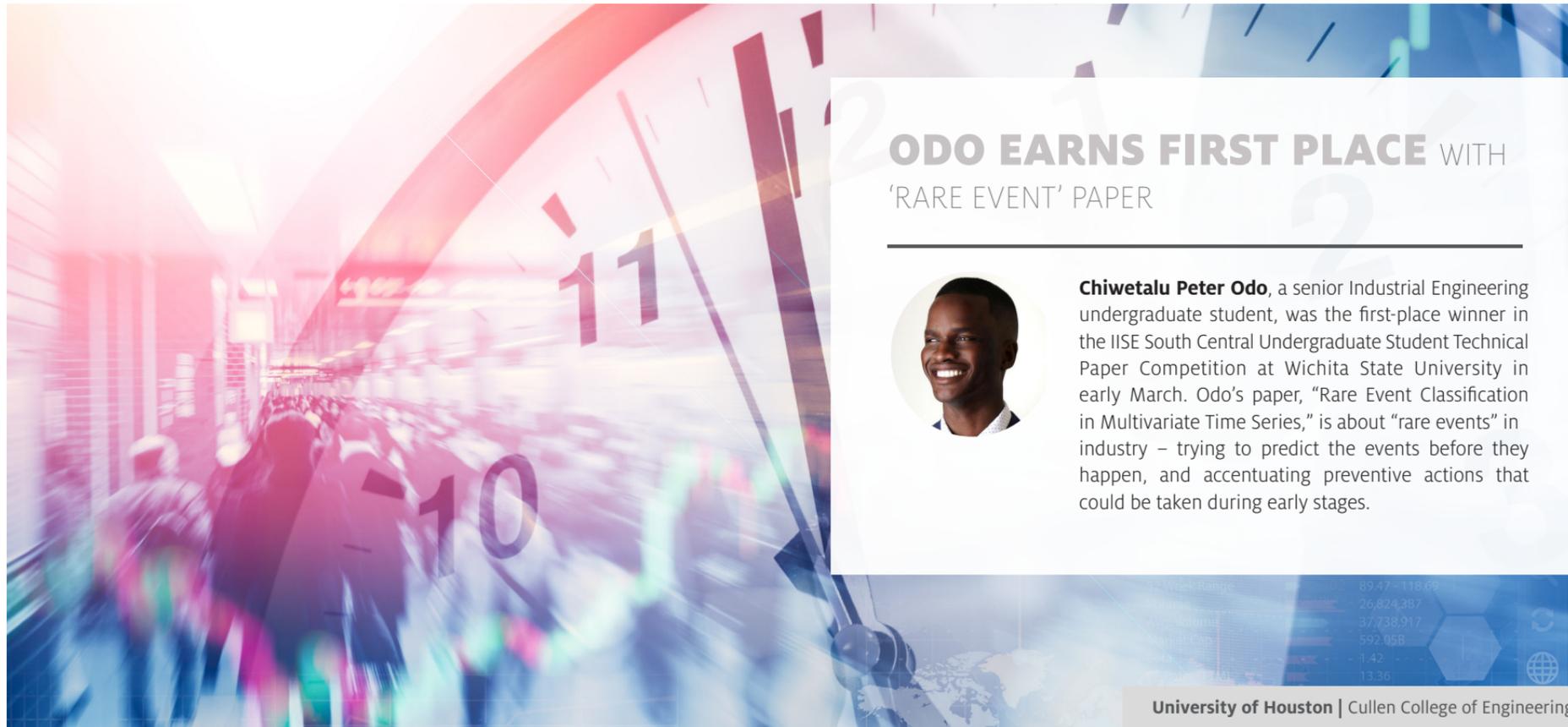
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UH IE GRAD STUDENTS HONORED FOR **OPERATION ROOM EFFICIENCY**

A pair of University of Houston graduate students earned a third place finish for their model to handle operation room cases at the annual Healthcare Systems Process Improvement Conference, presented by the Society of Health Systems in Savannah, Georgia, in February 2020. **Moaz Ahmed** and **Muhammad Zia-ul-Haq Hussain** took the honors home for the university.

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ODO EARNS FIRST PLACE WITH 'RARE EVENT' PAPER



Chiwetalu Peter Odo, a senior Industrial Engineering undergraduate student, was the first-place winner in the IISE South Central Undergraduate Student Technical Paper Competition at Wichita State University in early March. Odo's paper, "Rare Event Classification in Multivariate Time Series," is about "rare events" in industry – trying to predict the events before they happen, and accentuating preventive actions that could be taken during early stages.

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LIN RECEIVES SUB-AWARD ON NIH GRANT FOR WORK ON **PSYCHIATRIC GENETICS**

Dr. Ying Lin, a member of the faculty at the University of Houston's Cullen College of Engineering, was awarded a \$435,017 grant to continue research on identifying underlying genetic contributors to some forms of psychiatric illness. The award is part of a larger \$2.4 million project.

The research will be completed over four years by Lin, an Assistant Professor of Industrial Engineering and the director of the Smart Health & Intelligent Engineering Systems (SHINES) Lab. The grant, "Integrative approaches to identification and interpretation of genes underlying psychiatric disorders," is in collaboration with the Lieber Institute for Brain Development (LIBD), an independent, not-for-profit medical research institute in Baltimore working to develop new treatments for brain disorders.

Photo provided by distillery*



INDUSTRIAL ENGINEERING



Photo provided by distillery*

MIXING IT UP

After the start of the pandemic, it wasn't long before stores across the country were sold out of alcohol-based hand sanitizer. Alcohol-based? It was a light bulb moment for UH IE Alumnus **Carlos De Aldecoa**, who manufactures liquors and spirits for a living. As president and CEO of Texas' largest distillery, Gulf Coast Distillers on Houston's East End, the University of Houston alumnus recognized a unique opportunity to shift operations from producing distilled spirits – vodka, bourbon, whiskey and gin – to making hand sanitizer. In just a matter of weeks, C4U hand sanitizer was created. C4U is being sold in retail locations across the country, but the company has also donated over \$325,000 of product to first responders, hospitals and nonprofits.

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 \$35 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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Research

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