



# RESEARCH

FUELING THE FUTURE

# MILESTONES

IN PETROLEUM 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, academic success stories and newly funded projects.

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,

**Mohamed Soliman, Ph.D., P.E., NAI**

Department Chair and William C. Miller Endowed Chair Professor  
Petroleum Engineering Department  
Cullen College of Engineering  
University of Houston

## UH PE BY THE NUMBERS



**#11**

BEST PETROLEUM  
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



**156** UNDERGRADUATE  
STUDENTS

**82** GRADUATE  
STUDENTS

**238** 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



**55** RESEARCH LABS, CENTERS,  
INSTITUTES & INDUSTRY CONSORTIUMS

# PETROLEUM

## DEPARTMENT UPDATES

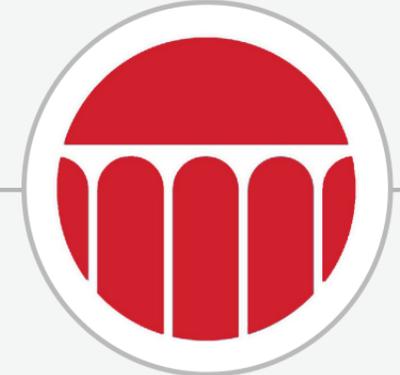


Student success in the department is excelling. The UH SPE student chapter was recognized for its performance excellence, and **many graduate and undergraduate students have won or placed in numerous SPE and SPWLA competitions**, as well as in PetroBowl. Additionally, some of the department's students qualified for the international competition at the SPE Annual Technical Conference and Exposition 2020. The department has also started a student organization for the American Rock Mechanics Association.



The UH Petroleum Engineering department is growing. Earlier this year, the department unveiled a **25,000 square foot expansion** of its state-of-the-art facilities at the UH Technology Bridge.

To learn more about partnering with the Technology Bridge, visit: [innovation.uh.edu/technology-bridge](https://innovation.uh.edu/technology-bridge).



The department also boasts **4 NAE faculty** members and recently **rose 3 spots on the US News and World Report** ranking list earlier this year. The department is now ranked at No. 11.

## SOLIMAN HONORED WITH **SPE REGIONAL DISTINGUISHED ACHIEVEMENT**



**Mohamed Soliman**, the William C. Miller endowed chair professor and the Department Chairman of Petroleum Engineering, has been selected for the Regional Distinguished Achievement Award for Petroleum Engineering Faculty for the Society of Petroleum Engineers' Gulf of Mexico section.

The award recognizes superior teaching, excellence in research, significant contributions to the petroleum engineering profession, and/or special effectiveness in advising and guiding students, according to the SPE. Recipients are nominated by their peers and professionals.

Past winners include Konstantinos Kostarellos, UH associate professor of petroleum engineering, in 2018 and Thomas Holley, Former Professor and Director of the Petroleum Engineering Department, in 2014.



## UH PETROLEUM ENGINEERING STUDENT SELECTED TO **ATTEND IPTC 2020**

**Nhung Nguyen**, a student majoring in petroleum engineering at the UH Cullen College of Engineering, was one of 100 students chosen from around the world to attend the Education Week program of the 2020 International Petroleum Technology Conference (IPTC) held in January 2020, in Saudi Arabia. Education Week is designed to provide college juniors and seniors insight into the petroleum industry, as well as the opportunity to work together on a joint assignment, go on field trips and network with major industry employers.

IPTC will cover travel and accommodation expenses for the selected students. Nguyen plans to pursue a master's degree in either data science or reservoir engineering. She works as a research assistant at the Cullen College and serves in leadership roles with the UH chapter of the Society of Petroleum Engineers (SPE).

## UH SOCIETY OF PETROLEUM ENGINEERS WINS **STUDENT CHAPTER EXCELLENCE AWARD**

Despite the unique ending to the spring 2020 semester, the year turned out to have a silver lining for at least one energy-related student chapter at the University of Houston. The UH Society of Petroleum Engineers (UH SPE) was recently awarded its first Student Chapter Excellence Award for 2020. The award is the second-highest honor student chapters can receive, recognizing the top 20% of eligible student chapters. The prestigious award recognizes the group's programs in industry engagement, operations and planning, community involvement, professional development and innovation.

## PH.D. CANDIDATE EFFIONG HONORED WITH **EXXONMOBIL AWARD**



The Reservoir Engineering Discipline Leadership at ExxonMobil, one of the world's largest publicly traded energy providers, has awarded Cullen College of Engineering student **Michael Effiong** the Advanced Skill Milestone (ASM) in Production Engineering. He is currently a reservoir engineer at ExxonMobil Upstream Oil and Gas, supporting the deep-water assets. He is also a Ph.D. candidate at the University of Houston, following completion of the required Ph.D. course work in 2018 and subsequently, the Ph.D. Qualifying Examination held in January 2019.



PETROLEUM ENGINEERING

## PETROLEUM ENGINEERING **ALUMNUS** **DONATES MASKS TO UH**

As the coronavirus spread throughout the United States, one Cullen College of Engineering alum felt compelled to act and to support the university that helped him.

**GQ Guo** graduated from the college with a Master's in Petroleum Engineering in 2017, but continued to monitor the pandemic in Houston following his graduation. When one of his friends in China opened a mask factory, Guo arranged to send 800 masks to the university.

This was not the first time Guo supported the Cullen College. Guo said the supportive environment of the college always encouraged him to give back. "If you are in a place where everyone is passionate, energetic and optimistic, you will be one of them," he said. "Another reason is belief. I believe in UH, and I trust my professors and my friends over there. I feel proud of it. No matter what happened, I knew UH friends and faculty were backing me up."

## PETROLEUM ENGINEERING ALUM NAMED AS ONE OF **TWA'S ENERGY INFLUENCERS**

**Pushpesh Sharma**, a May 2019 graduate from the University of Houston's chemical engineering and petroleum engineering programs, has earned distinction for his work as a doctoral student and with the start-up Inveniam Asset Management by being named one of The Way Ahead's 2020 Energy Influencers.

Dating back to 2005, TWA is a publication of the Society of Petroleum Engineers, with content generated and sourced by TWA volunteers, SPE staff and guest authors. According to its website, the publication is written by and for young professionals in the upstream oil and gas industry.

The publication noted that he was the first graduate student to join the subsurface research laboratory under Dr. Konstantinos Kostarelos at the Energy Research Park, and helped develop the laboratory facilities. His dissertation work on a novel non-thermal heavy oil recovery process provided a green and sustainable alternative to thermal processes and is now a part of a patent application.



# 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.



# UNIVERSITY of **HOUSTON** | ENGINEERING

UH Cullen College of Engineering  
Department of Petroleum Engineering  
UH Technology Bridge  
5000 Gulf Freeway Bldg. 9, Room 219  
Houston, Texas 77204-0945

 @UHEngineering

Research 

# MILESTONES