



# ENGINEERED FOR WHAT'S NEXT.

**STATE OF THE COLLEGE | SPRING 2022**

*Presented by Dean Joseph W. Tedesco*

**MAY 3, 2022**

**CULLEN**  
COLLEGE OF ENGINEERING  
UNIVERSITY of HOUSTON

# VISION

To become a **“TOP 50”** Engineering Program as defined by U.S. News and World Report, in support of Houston’s Tier One initiative.

**BEST  
GRAD SCHOOLS**

**U.S. News & World Report**

**RANKINGS**



# MISSION



### TO SERVE

the Greater Houston community, Texas and the nation by educating engineers to assume leadership positions in the identification and solution of the complex technical challenges of society,



### TO ADVANCE

the state of knowledge through pioneering research and scholarly work,



### TO FACILITATE

the transfer of new technology to Texas and U.S. industries,



### TO PLAY A KEY ROLE

in economic development for the Greater Houston region and the State of Texas, and



### TO BENEFIT THE PUBLIC

sector through service to the university, community, industry, government and the engineering profession.



## OVERVIEW

### GOALS AND INITIATIVES:

CCE is in its **7<sup>th</sup> year** of implementing its strategic plan to become a Top 50 Engineering Program rated by U.S. News & World Report.

### REACHING THE TOP 50:

- **Excellence and unprecedented growth** in the Cullen College's academic programs, with an overarching emphasis on student success
- **Development of strategic community partnerships**
- **Building state-of-the-art** research and classroom facilities

**CCE's strategic plan is being used as a model for the rest of the UH campus.**

### USNWR RANKING:

**Currently Ranked:** No. 71

**Goal:** Top 50



# STRATEGIC

## GOALS AND INITIATIVES



**STUDENT  
SUCCESS**



**NATIONAL  
COMPETITIVENESS**



**BRANCHING OUT:  
NEW BUILDINGS  
AND CAMPUSES**



**PARTNERING  
WITH HOUSTON**

## COLLEGE SUCCESS MEASURES

	2017	2018	2019	2020	2021
<b>*1. Total Research Expenditures (in millions)<sup>2</sup></b>	<b>\$23.7</b>	<b>\$29.9</b>	<b>\$35.2</b>	<b>\$33.8</b>	<b>\$37.4</b>
Annual Change		\$6.2	\$5.3	-\$1.4	\$3.6
<b>2. Total Annual Giving</b>	<b>\$18,727,364</b>	<b>\$7,100,957</b>	<b>\$7,664,769</b>	<b>\$6,213,102</b>	<b>\$13,614,584</b>
Annual Change		-\$11,626,407	\$563,812	-\$1,451,667	\$7,401,482
<b>3. First-Year FTIC Retention Rate<sup>1</sup></b>	<b>88.1%</b>	<b>89.6%</b>	<b>91.4%</b>	<b>93.6%</b>	<b>88.9%</b>
Annual Change		1.5%	1.8%	2.2%	-4.7%
<b>4. Six-Year FTIC Graduation Rate<sup>1</sup></b>	<b>44.8%</b>	<b>48.6%</b>	<b>67.3%</b>	<b>71.2%</b>	<b>64.2%</b>
Annual Change		3.8%	18.7%	3.9%	-7.0%
<b>5. Bachelor's Degrees Awarded</b>	<b>598</b>	<b>714</b>	<b>688</b>	<b>620</b>	<b>635</b>
Annual Change		116	-26	-68	15
<b>6. Doctoral Degrees Awarded</b>	<b>70</b>	<b>84</b>	<b>84</b>	<b>86</b>	<b>90</b>
Annual Change		14	0	2	4
<b>*7. Citations</b>	<b>15,915</b>	<b>24,027</b>	<b>33,220</b>	<b>41,330</b>	<b>43,541</b>
Annual Change		8,112	9,193	8,110	2,211
<b>*8. Journal Articles Published<sup>2</sup></b>	<b>564</b>	<b>602</b>	<b>639</b>	<b>642</b>	<b>627</b>
Annual Change		38	37	3	-15
<b>*9. Undergraduates in Research<sup>2</sup></b>		<b>86</b>	<b>78</b>	<b>70</b>	<b>67</b>
Annual Change			-8	-8	-3
<b>*10. Research Activity<sup>2,3</sup></b>		<b>76</b>	<b>73</b>	<b>111</b>	<b>145</b>
Annual Change			-3	38	34

**\*50 in 5 measure**

**Notes:** 1. The percentage of students in the UH FTIC cohort whose last declared major was in this college and who graduated from this college in 6 years. 2. Data provided by college. 3. Composite index of the number of proposals submitted >\$1M and the number of proposals submitted for centers

**FY2022 FUNDING FOR ENGINEERING FROM ACADEMIC AFFAIRS**

<b>ENGR</b>	<b>Amount</b>
Tenure and Promotion (Recurring)	\$35,920
New Faculty Salary Line (Recurring)	\$132,550
Key Initiatives (Recurring)	\$60,000
Merit (Recurring)	\$604,346
Grad Student Salary Increase (Recurring)	\$592,586
Staff Salary Update - Phase 1 (Recurring)	\$50,345
Summer Instruction (One-Time)	\$861,641
FY22 Outcomes Funding (One-Time)	\$784,453
UH-HCC Engineering Academy Fraga Campus (One-Time)	\$275,000
<b>Total</b>	<b>\$3,396,841</b>

FY2022 start-up from DOR: \$5,988,420 (begins in FY2022 and covers two years)

## RESEARCH EXPENDITURES

Engineering received 33.9% of IDC returned to units

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### IDC DISTRIBUTION ALL UH

Total IDC Recovered in FY2021 (Returned in FY2022)	\$23,987,128
Adjusted Return to Generating Units	\$12,319,968

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### IDC DISTRIBUTION TO ENGINEERING

Total Returned Engineering (Both College/Depts)	\$4,178,034
Adjusted Return to Engineering Departments/Centers	\$1,742,545



## FUNDING TOTALS

Expense	University Funding FY2020	Grant Funding FY2020	Total Funding FY2020	University Funding FY2021	Grant Funding FY2021	Total Funding FY2021
Ranked Faculty Salaries	20,475,413	224,854	20,700,267	20,713,942	413,728	21,127,670
Non-Tenure Track Faculty Salaries	2,749,889	-	2,749,889	2,523,857	4,687	2,528,544
Research Faculty Salaries	593,728	542,259	1,135,987	542,993	722,590	1,265,583
Summer Faculty Salaries	781,947	3,113,681	3,895,628	746,599	2,688,557	3,435,156
Summer Instruction	711,782	-	711,782	474,113		474,113
Chair Professor Stipends	1,018,617	12,849	1,031,466	1,195,854	149	1,196,003
Staff Salaries	5,795,404	307,452	6,102,856	5,583,904	318,555	5,902,459
Research Staff Salaries	1,473,438	2,874,162	4,347,600	1,260,238	3,272,471	4,532,709
Research Assistant Salaries	1,888,554	5,974,681	7,863,235	1,857,125	6,794,427	8,651,552
Teaching Assistant Salaries	1,654,081	42,728	1,696,809	1,386,505	14,112	1,400,617
Student Workers	754,391	44,250	798,641	562,176	79,860	642,036
Fringe Benefits	4,286,655	2,402,663	6,689,318	4,003,326	2,213,541	6,216,867
Other Personnel Costs	64,485	31,959	96,444	318	822	1,140
Maintenance and Operations	6,486,591	15,865,318	22,351,909	4,884,338	15,790,902	20,675,240
Capital Outlay	4,543,144	1,916,706	6,459,850	6,279,742	3,093,475	9,373,217
<b>Total</b>	<b>53,278,119</b>	<b>33,353,562</b>	<b>86,631,681</b>	<b>52,015,030</b>	<b>35,407,876</b>	<b>87,422,906</b>

## FACULTY EXCELLENCE

### FACULTY BY THE NUMBERS

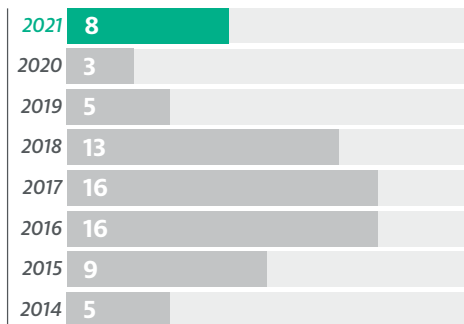
**146\***  
CURRENT FACULTY  
HEADCOUNT

**16**  
NAE MEMBERS

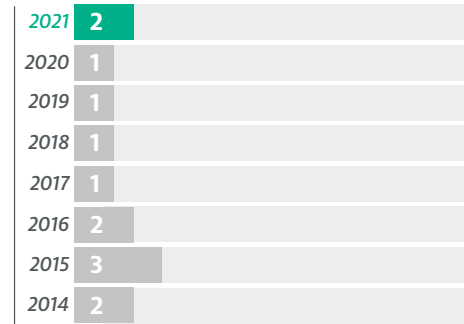
**23**  
WOMEN\*

**7**  
BLACK AND/OR HISPANIC\*

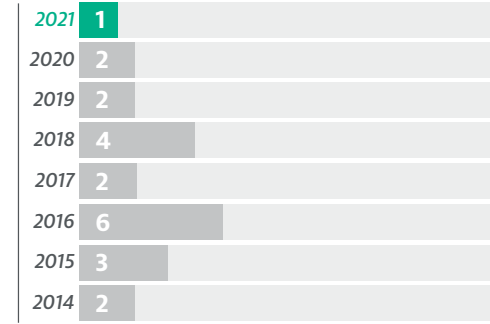
#### New Faculty



#### Retired Faculty



#### Resignations



\*Tenured or Tenure Track

# WHERE WE WANT TO BE

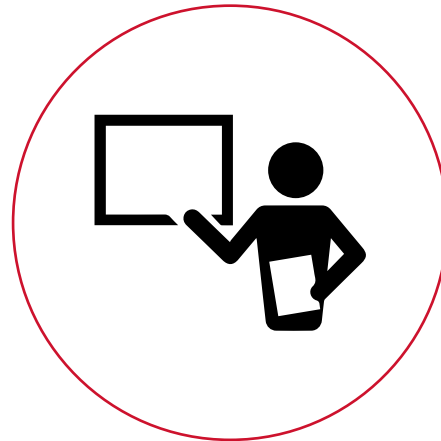
## RECRUITMENT GOALS FOR 2025



**160**

**TOTAL FACULTY**

*CURRENTLY AT 146*



**22**

**NAE MEMBERS**

*CURRENTLY AT 16*



**20%**

**FEMALE FACULTY**

*CURRENTLY AT 16%*



**6%**

**MINORITY FACULTY**

*CURRENTLY AT 5%*



## STUDENT ENROLLMENT FROM 2008-2021

## STUDENT SUCCESS

### Overall Enrollment



→ 13 Year Difference = +66% Increase in Enrollment

### Undergraduate Enrollment



→ 13 Year Difference = +64% Increase in Undergraduates

### Graduate Enrollment



→ 13 Year Difference = +74% Increase in Graduates

### Master's Enrollment

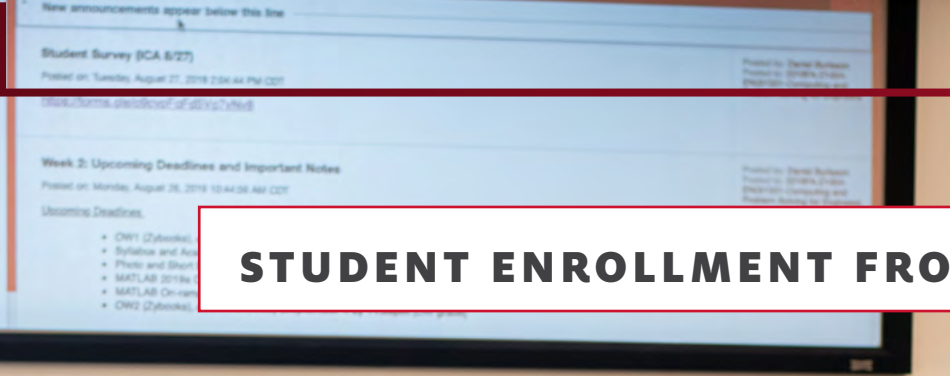


→ 13 Year Difference = +43% Increase in Master's students

### Doctoral Enrollment

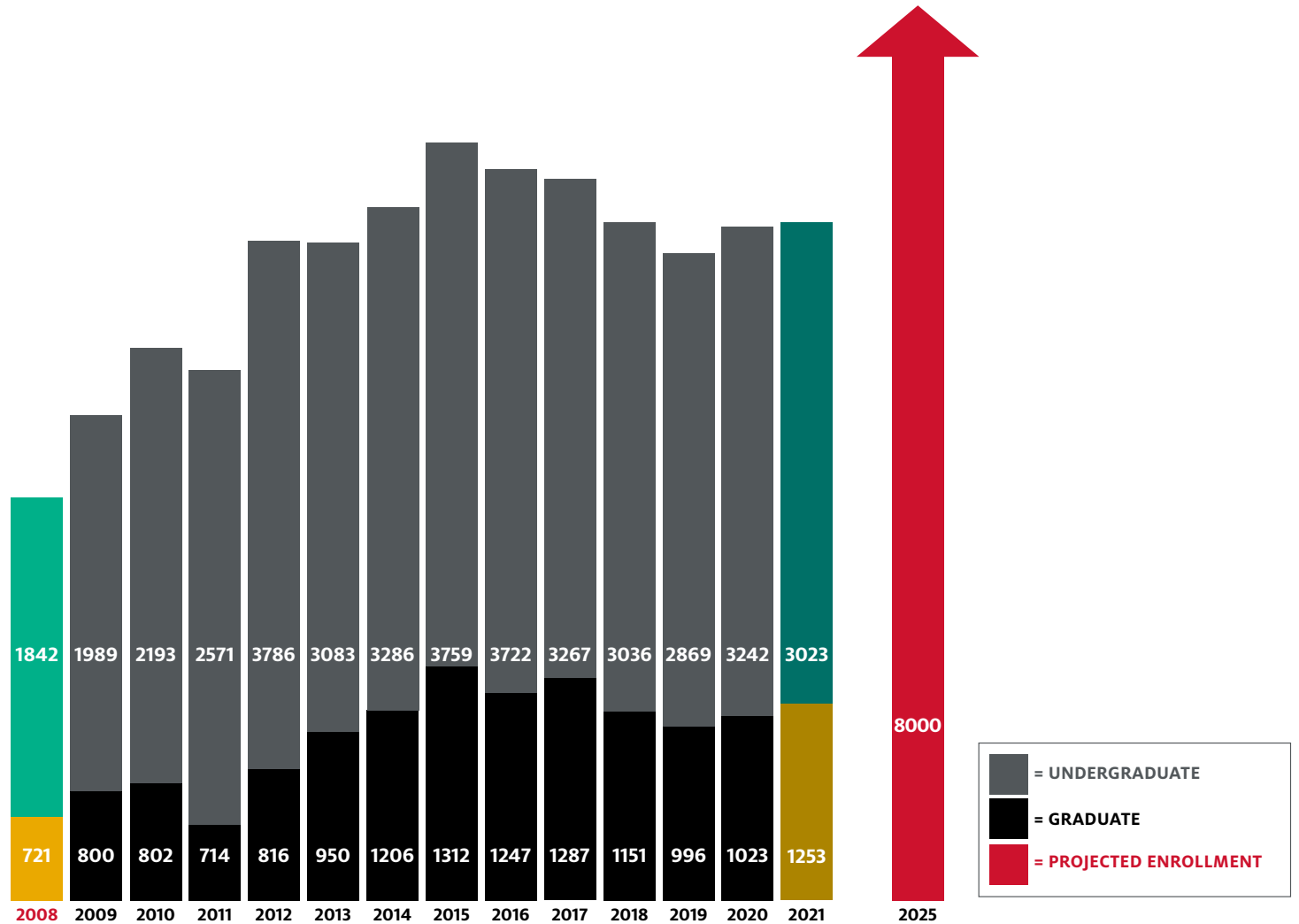


→ 13 Year Difference = +143% Increase in Doctoral students



## STUDENT SUCCESS

### STUDENT ENROLLMENT FROM 2008-2021



# WHERE WE WANT TO BE

## ENROLLMENT GOALS FOR 2025

**8,000**

**TOTAL STUDENTS**  
**2,400 GRAD +**  
**5,600 UNDERGRAD**

*CURRENTLY AT 4,276*

**15%**

**AFRICAN AMERICAN**  
**STUDENTS**

*CURRENTLY AT 4%*

**35%**

**HISPANIC**  
**STUDENTS**

*CURRENTLY AT 27%*

**30%**

**FEMALE**  
**STUDENTS**

*CURRENTLY AT 26%*





CULLEN COLLEGE VS NATIONAL AVERAGES

HOW DO WE COMPARE?



VS.



of undergraduate engineering students in the **U.S.** were **female** in 2021

of **UH Engineering** undergraduate students are **female** in 2021



VS.



of undergraduate engineering students in the **U.S.** were **Black** in 2021

of **UH Engineering** undergraduate students are **Black** in 2021



VS.



of undergraduate engineering students in the **U.S.** were **Hispanic** in 2021

of **UH Engineering** undergraduate students are **Hispanic** in 2021



VS.



national percentage of **women tenured and tenure-track** engineering faculty

percentage of **women tenured and tenure-track UH** engineering faculty



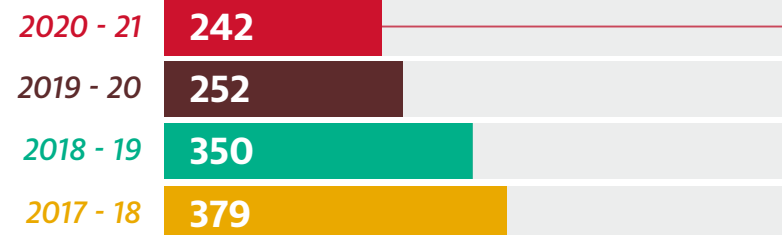
## DEGREES AWARDED BY ACADEMIC YEAR

## STUDENT SUCCESS

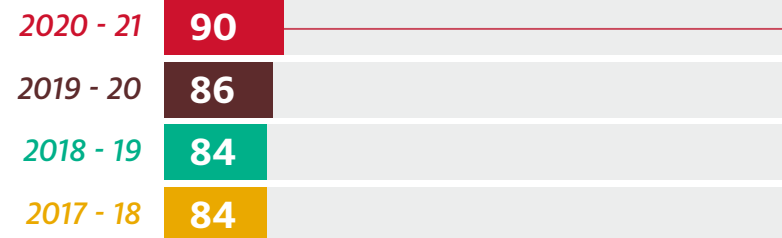
### Bachelors Degrees



### Masters Degrees



### Doctoral Degrees

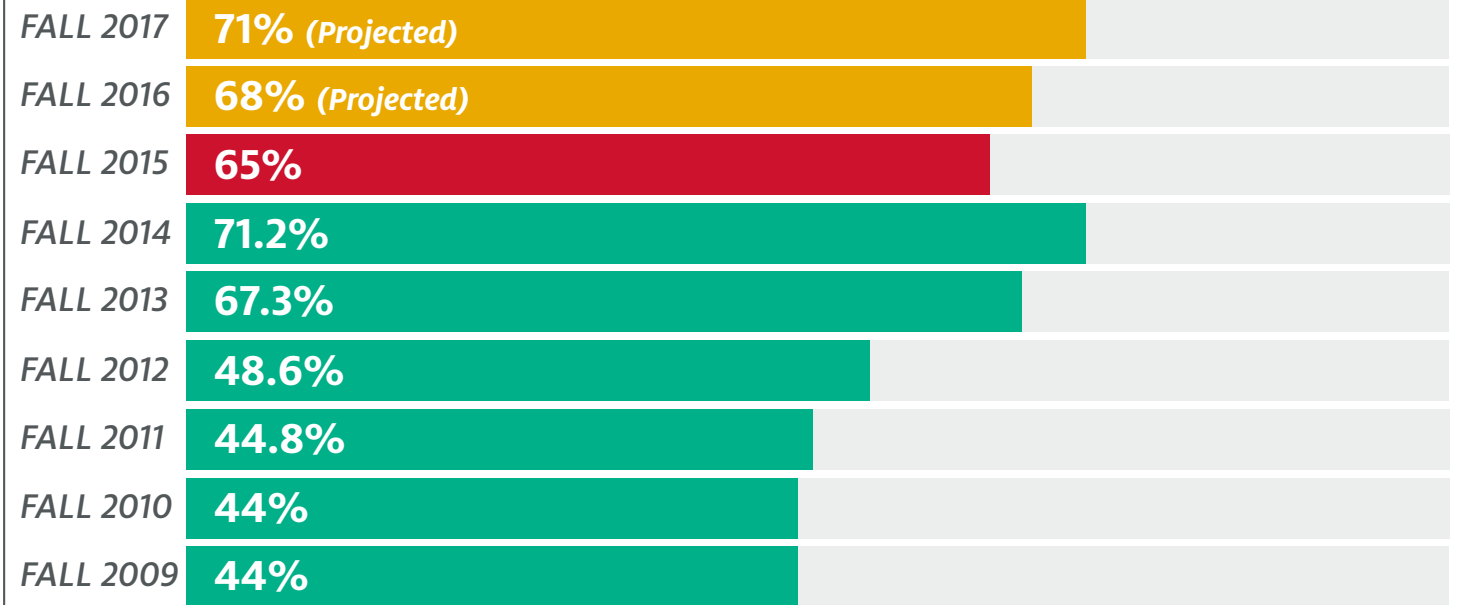


**TOTAL NUMBER OF  
DEGREES AWARDED IN 2020-21:  
967 DEGREES**



### 6-YEAR GRADUATION RATES

#### Bachelors Degrees





# NATIONAL COMPETITIVENESS



## 16 NATIONAL ACADEMY OF ENGINEERING (NAE) FACULTY



**Dan Luss**  
CULLEN DISTINGUISHED PROFESSOR,  
CHEMICAL ENGINEERING



**Jerome Schultz**  
DISTINGUISHED PROFESSOR,  
BIOMEDICAL ENGINEERING



**James M. Symons**  
CULLEN DISTINGUISHED PROFESSOR  
EMERITUS, CIVIL & ENVIRONMENTAL ENGINEERING



**Benton F. Baugh**  
ADJUNCT PROFESSOR & ALUMNUS,  
MECHANICAL ENGINEERING



**John H. Lienhard**  
M.D. ANDERSON PROFESSOR  
OF MECHANICAL ENGINEERING AND HISTORY,  
EMERITUS, MECHANICAL ENGINEERING



**Christine A. Ehlig-Economides**  
PROFESSOR & WILLIAM C. MILLER  
ENDOWED CHAIR OF PETROLEUM ENGINEERING



**Kaspar Willam**  
HUGH ROY AND LILLIE CRANZ CULLEN  
DISTINGUISHED UNIVERSITY PROFESSOR,  
CIVIL & ENVIRONMENTAL ENGINEERING



**Jamal J. Azar**  
DISTINGUISHED ADJUNCT PROFESSOR,  
PETROLEUM ENGINEERING



**S.M. Farouq Ali**  
DISTINGUISHED PROFESSOR,  
PETROLEUM ENGINEERING



**Andrea Prosperetti**  
DISTINGUISHED PROFESSOR,  
MECHANICAL ENGINEERING



**Kaushik Rajashekara**  
DISTINGUISHED PROFESSOR,  
ELECTRICAL AND COMPUTER ENGINEERING



**Ganesh Thakur**  
DISTINGUISHED PROFESSOR,  
PETROLEUM ENGINEERING



**Birol Dindoruk**  
DISTINGUISHED PROFESSOR,  
PETROLEUM ENGINEERING



**Donald R. Wilton**  
PROFESSOR EMERITUS,  
ELECTRICAL & COMPUTER ENGINEERING



**Hao Huang**  
DISTINGUISHED PROFESSOR,  
ELECTRICAL & COMPUTER ENGINEERING



**Pradeep Sharma**  
M.D. ANDERSON CHAIR PROFESSOR &  
DEPARTMENT CHAIR,  
MECHANICAL ENGINEERING

NATIONAL COMPETITIVENESS

**TOTAL NATIONAL  
ACADEMY OF  
ENGINEERING (NAE)  
MEMBERS AT OTHER  
INSTITUTIONS:**



**TEXAS**

The University of Texas at Austin

**22**

**TEXAS A&M**  
UNIVERSITY

**35**



THE UNIVERSITY OF ARIZONA

College of Engineering

**10**



RICE UNIVERSITY

**12**



**TEXAS TECH**  
UNIVERSITY.

**5**

*By comparison, University of  
Arizona's College of Engineering has  
**11 NAE members** and is ranked  
**#64 by US News and World Report.***



# 24 NATIONAL SCIENCE FOUNDATION (NSF) CAREER AWARDS



## NATIONAL COMPETITIVENESS



**MEGAN ROBERTSON (CHBE)**

DEVELOPING PLASTICS FROM PLANTS.



**JIMING BAO (ECE)**

EXAMINING THE OPTICAL PROPERTIES OF GRAPHENE, ONE-ATOM-THICK SHEETS OF CARBON.



**JACINTA CONRAD (CHBE)**

DEVELOPING SURFACES THAT LIMIT BACTERIA MOTILITY.



**JEFFREY RIMER (CHBE)**

IMPROVING ZEOLITES, A CLASS OF CATALYSTS USED IN THE PETROLEUM AND CHEMICAL INDUSTRIES.



**DEBORA RODRIGUES (CEE)**

STUDYING THE ENVIRONMENTAL IMPACT OF NANO-SCALE MATERIALS THAT UTILIZE GRAPHENE.



**LARS GRABOW (CHBE)**

DESIGNING A NOVEL CHEMICAL LOOPING PROCESS FOR METHANE COUPLING USING HYDROGEN STORAGE MATERIALS.



**WEI-CHUAN SHIH (ECE)**

DEVELOPING A NEW METHOD TO RAPIDLY IDENTIFY AND PROFILE BACTERIA.



**GILA STEIN (CHBE)**

CHARACTERIZING AND IMPROVE POLYMER-BASED SOLAR CELLS.



**HALEH ARDEBILI (ME)**

DEVELOPING MORE EFFECTIVE STRETCHABLE, FLEXIBLE BATTERIES.



**ZHU HAN (ECE)**

CREATING "COGNITIVE RADIO NETWORKS" TO IDENTIFY QUIET FREQUENCIES AND UTILIZE THEM FOR DATA TRANSMISSION.



**STANKO BRANKOVIC (ECE)**

INVESTIGATING HOW THE SIZE OF A MATERIAL EFFECTS ITS BEHAVIOR.



**BORA GENCTURK (CEE)**

INCREASING RESILIENCY AND SUSTAINABILITY OF REINFORCED CONCRETE AGAINST AGING AND SEISMIC HAZARDS THROUGH NOVEL MATERIALS.



**CUNJIANG YU (ME)**

INCREASING RESILIENCY AND SUSTAINABILITY DEVELOPING 3D ELECTRONICS MANUFACTURING PROCESS.



**AARON BECKER (ECE)**

MANIPULATING LARGE SWARMS OF MICRO-ROBOTS TO PERFORM SPECIFIC TASKS.



**ZHENG CHEN (ME)**

CREATING ARTIFICIAL MUSCLE AND TENDONS FOR DEXTEROUS, COMPLIANT AND AFFORDABLE PROSTHESES THAT MORE CLOSELY MIMIC HUMAN MUSCLES.



**JEREMY PALMER (CHBE)**

CONTROLLING CRYSTAL NUCLEATION IN LIQUIDS TO TRANSFORM APPLICATIONS IN PHARMACEUTICAL PROCESSING AND MATERIALS DESIGN.



**SHEEREEN MAJD (BME)**

TAILORING NANOPARTICLE DRUG CARRIERS TO IMPROVE DRUG DELIVERY.



**ROSE FAGHIH (ECE)**

DEVELOPING SIGNAL PROCESSING AND CONTROL ALGORITHMS FOR WEARABLE DEVICES.



**DAVID MAYERICH (ECE)**

DEVELOPING A SOFTWARE PLATFORM TO PRODUCE SEARCHABLE DIGITAL ATLASES OF WHOLE ORGANS AT THE CELLULAR LEVEL.



**MEHMET ORMAN (CHBE)**

STUDYING PERSISTENT CELLS - THOSE THAT GO DORMANT AND THEN BECOME TOLERANT TO EXTRAORDINARY LEVELS OF ANTIBIOTICS.



**KYUNG JAE LEE (PE)**

CONTRIBUTING TO THE ENHANCEMENT AND DIVERSIFICATION OF THE DOMESTIC SUPPLY OF LITHIUM.



**SHAILENDRA JOSHI (ME)**

MECHANICS OF RECYCLABLE THERMOSET POLYMERS.



**DEVIN SHAFFER (CEE)**

BETTER FILTRATION METHODS VIA NEW POROUS MATERIALS.



**JINSOOK ROH (BME)**

FACILITATING STROKE REHABILITATION WITH HUMAN-MACHINE INTERFACE DEVICES.



# FAULTY

## RESEARCH IN 2021

81%

of **faculty** had **research expenditures** in 2021

87%

of **faculty** published **research** in 2021

## RESEARCH PORTFOLIO\* (AWARDS GREATER THAN \$1M)



**PI:** Harish Krishnamoorthy (PI) and Kaushik Rajashekara (Co-PI)  
**Award Amount:** \$1,015,000  
**Award Subject:** Miniaturized Pulsed Power Systems for Mission Critical Applications (Mini-PulPS)  
**Awarding Agency:** U.S. Department of Energy



**PI:** Lars Grabow  
**Award Amount:** \$1,034,310  
**Award Subject:** Resilient Ammoxidation of Small Hydrocarbons (R-ASH) Using Forced Dynamic Operation for Maximal Flexibility  
**Awarding Agency:** U.S. Department of Energy



**PI:** Peter Vekilov (PI) and Jeffrey Rimer (Co-I)  
**Award Amount:** \$1,162,500  
**Award Subject:** Dual Artemisinin Action Combats Resistance  
**Awarding Agency:** Johns Hopkins University (pass-thru from NIH)



**PI:** Debora Rodrigues (PI) and Stacey Louie (Co-PI)  
**Award Amount:** \$1,574,057  
**Award Subject:** Collaborative Research: MIM: The Impact of the Fungal Microbiome in Metal Tolerance and Soil Biogeochemical Transformations  
**Awarding Agency:** National Science Foundation



**PI:** Navin Varadarajan  
**Award Amount:** \$1,786,244  
**Award Subject:** MusIC: A Multi-Scale Technology for Integrating Dynamic Cellular Function and Molecular Profiles  
**Awarding Agency:** National Institute of General Medical Sciences



**PI:** Gül Zerze  
**Award Amount:** \$2,000,000  
**Award Subject:** Innovating Computer-aided Drug Discovery for Breast Cancer  
**Awarding Agency:** Cancer Prevention and Research Institute of Texas (CPRIT)

## RESEARCH PORTFOLIO\* (AWARDS GREATER THAN \$1M)



**PI:** Wei-Chuan Shih

**Award Amount:** \$2,663,973

**Award Subject:** Streamlined and Comprehensive Circulating Tumor Exosome Profiling by Microfluidic Arrayed Nanoplasmonic Sensors and Actuators

**Awarding Agency:** National Institute of Biomedical Imaging and Bioengineering



**PI:** Mario Ignacio Romero-Ortega

**Award Amount:** \$2,792,305

**Award Subject:** Regenerative Ultramicroelectrode Arrays for Sensory-Motor Specific Interfacing

**Awarding Agency:** National Institute of Neurological Disorders and Stroke (NIH)



**PI:** Yan Yao

**Award Amount:** \$3,400,000

**Award Subject:** Lithium- and Transition Metal-Free High-Energy Fast-Charging Batteries

**Awarding Agency:** U.S. Department of Energy



**PI:** Nuri Firat Ince

**Award Amount:** \$3,708,829

**Award Subject:** Acute Modulation of Stereotyped High Frequency Oscillations with a Closed-Loop Brain Interchange System in Drug Resistant Epilepsy

**Awarding Agency:** National Institute of Neurological Disorders and Stroke (NIH)

## MAJOR PROJECT MILESTONES\*



**UH, Shell, TotalEnergies Sign \$500k Extension To \$1M Project**

The initial \$1 million research award, “Injector Experiments in Sand Pack with 3-D Confining Stresses,” ran from October 2019 through September 2021. The extension will fund the project through September 2022.

**UH Project Lead:** George Wong (PI) and Lori Hathon (Co-PI)



**Phase 3 Of UH-Oil India Project Completed**

Phase 3 of the UH-Oil India project totaled \$2.6 million and lab research work focused on enhancing oil production by using carbon dioxide to boost oil recovery. Work will continue into Phase 4.

**UH Project Lead:** Ganesh Thakur

\*Examples taken from May 2021 - April 2022



# WHERE WE WANT TO BE

## RESEARCH ENTERPRISE GOALS FOR 2025

**\$50M**

**IN TOTAL RESEARCH  
EXPENDITURES**

**\$15M**

**IN INDUSTRY-  
SPONSORED  
RESEARCH**

**\$35M**

**IN FEDERALLY-  
SPONSORED  
RESEARCH**

**\$350K**

**IN RESEARCH  
EXPENDITURES PER  
FACULTY MEMBER  
EACH YEAR**

# UPDATES ON MERGER WITH COLLEGE OF TECHNOLOGY



Earlier this semester, President Renu Khator announced that the University was exploring the possibility of a merger between the Cullen College of Engineering and College of Technology. First steps included:

- Discussions with the Deans of Engineering and Technology.
- Discussions with leadership teams from both colleges.



President Khator and Provost Short then formed a task force with 10 representatives from both colleges, five of whom represent the Cullen College:

- **Kirill Larin**, Ph.D., Professor, Department of Biomedical Engineering, Cullen College of Engineering
- **Dmitri Litvinov**, Ph.D., Moores Professor, Department of Electrical & Computer Engineering, Cullen College of Engineering
- **Lakis Mountziaris**, Ph.D., Chair and Professor, William A. Brookshire Department of Chemical and Biomolecular Engineering, Cullen College of Engineering
- **Hanadi Rifai**, Ph.D., Associate Dean Research and Facilities & Moores Professor, Department of Civil and Environmental Engineering, Cullen College of Engineering
- **Pradeep Sharma**, Ph.D., Chair and M.D. Anderson Professor, Department of Mechanical Engineering, Cullen College of Engineering



The task force completed a SWOT analysis utilizing input from focus groups conducted with individuals from both colleges. President Khator and Provost Short are expected to announce next steps soon.

### UPDATES ON UH-EXTEND



UH-Extend is our 100% fully-online offering of select graduate Master's and Certificate programs.



Degree plans are offered at a fixed and very competitive tuition rate, both for residents and nonresidents. A UH-Extend Master's degree can be obtained for ~\$23K total.



UH-Extend was approved in 2021, and the College had a soft opening in Fall 2021. Total enrollment for the soft opening was 10 individuals.



We are working with an external firm, eCity Interactive, to promote and market our UH-Extend programs. So far results have been encouraging:

- Enrollment this spring has increased to 28.
- Over 70 applications are in progress for Summer and Fall 2022.



# UPDATES ON UH AT KATY AND ENGINEERING ACADEMIES



CCE has two Engineering Academies with HCC — one located at UH at Katy, and another at the HCC Felix Fraga Campus in Southeast Houston.

- 52 students total enrolled in Fall 2021.
- 112 applications received so far for Fall 2022.



This spring, CCE is offering:

- 9 undergrad courses at UH at Katy.
- 1 undergrad course at Fraga.
- 2 graduate subsea courses at UH at Katy.

# UPDATES ON UH-DMU INTERNATIONAL INSTITUTE



The UH-DMU Institute is in its second year (there are two student cohorts, freshmen and sophomores).



Roberto Ballarini, the Institute Director, received the Global Faculty Award for leading the early success of the program.



A proposal submitted to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) was approved pending an onsite visit. A virtual visit was held in March 2022 and results were highly successful. A final site visit is expected to take place in 18 months.



The Institute is fully funded by DMU, and the budgets include support not only for Institute-related teaching, but also for other UH teaching and research missions. This includes dozens of teaching assistantships that fund our Ph.D. programs across the campus. For example, the Cullen College will deliver, in the steady state, approximately 30 courses per year which translate to at least 30-45 (0.5FTE) assistantships. In addition, 9 full-time lecturers will be hired to increase the size of each department's lecturer pool.

## UPDATES ON UH-DMU INTERNATIONAL INSTITUTE (CONT.)



The courses taught by UH faculty (1/3 of the curriculum) will involve full-time tenure-track and non-tenure-track faculty and lecturers that will be hired over the next two years.



We will reach the planned cohort size of 300 students within the next year or two. Current enrollment figures are listed in the below table:

PROGRAM	2020 COHORT	2021 COHORT
Civil Engineering	52	83
Electrical Engineering	55	89
Mechanical Engineering	45	84
<b>Total</b>	<b>152 <sup>(a)</sup></b>	<b>256</b>

(a) 175 students started in the inaugural cohort of Fall 2020.



WHAT'S NEXT  
IS HAPPENING  
RIGHT NOW.

## A NEW CREATIVE VISION & MARKETING STRATEGY



To continue further advancing the college's strategic objectives and national ranking, CCE partnered with Ologie, a marketing firm with a special focus in higher education.



Ologie provided CCE with an audit of current practices and strategies, and a new creative campaign, titled "Engineered for what's next," and a style guide to be used by all departments in the college.



CCE is currently in negotiations with multiple media outlets to expand external marketing and advertising efforts, with an emphasis on student and faculty recruitment, and national reputation.

BREAKING BARRIERS:

# UH'S FIRST

BLACK WOMAN CHEMICAL ENGINEER

“

BECAUSE MY DREAM CAME TRUE ON GRADUATION DAY, I IMMEDIATELY STARTED MY LIFELONG MISSION TO HELP OTHER WOMEN AND MINORITIES TO PURSUE ENGINEERING. NOW ALMOST 50 YEARS LATER I AM STILL ON THAT MISSION TODAY.

”



## NATIONAL COMPETITIVENESS

### COMMUNICATIONS & MARKETING DISTINCTIONS:

The CCE Office of Communications received the following distinctions during 2021:



#### The American Marketing Association, Crystal Awards

- Crystal Award - Best Video - Engineering with Faith
- Crystal Award - Best Feature Story - Breaking Barriers: UH's First Black Woman Chemical Engineer



#### Public Relations Society of America, Excalibur Awards

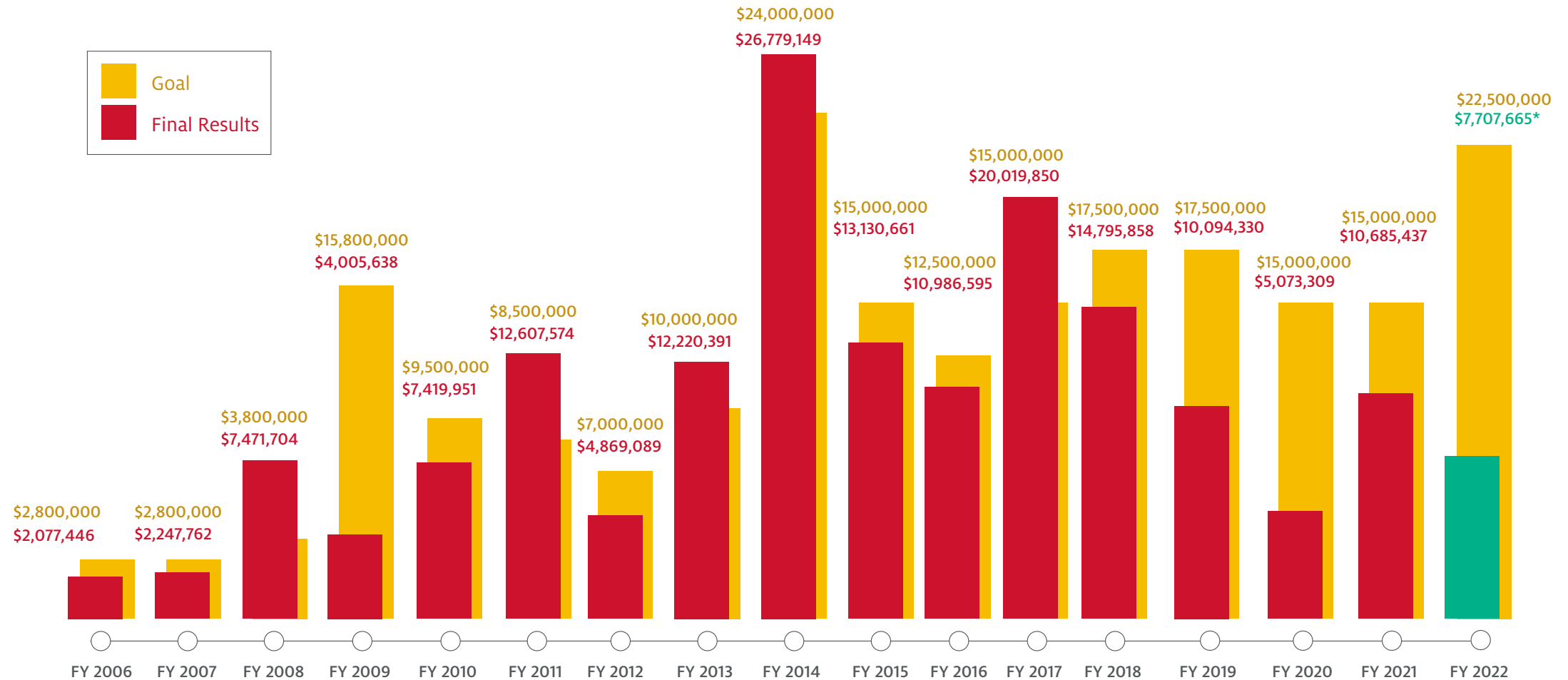
- Silver Distinction - Best Newsletter - Innovation in Healthcare
- Silver Distinction - Best Webcast - Virtual Graduation Celebrations
- Bronze Distinction - Best Feature Story - Breaking Barriers: UH's First Black Woman Chemical Engineer



#### Collegiate Advertising Awards

- Gold Distinction - Best Webcast/Podcast - Diversity, Equity and Inclusion in STEM
- Gold Distinction - Best Invitation Design - Engineering Alumni Awards Gala Invitations

## FUNDRAISING YEAR END RESULTS



\*YEAR TO DATE





# THANK YOU

PLEASE SEND FURTHER COMMENTS TO:

**DEAN@EGR.UH.EDU**

**CULLEN**  
COLLEGE OF ENGINEERING  
UNIVERSITY of **HOUSTON**