Letter from the President

December 2017

Dear University of Houston Graduates:

Congratulations on this most memorable day of your college career! The degree you are about to receive symbolizes the world-class, tier-one education you obtained at the University of Houston.

There were many factors that contributed to your success. The support of your parents, families and friends, and the encouragement of your faculty, advisors and staff played a significant part. But what made it all possible was the personal commitment, drive and resolve that helped you cross the finish line. We take profound satisfaction in knowing these same attributes will serve you well as you make your mark in the world.

Please leave today as proud UH graduates, confident you are the best prepared, best educated and best equipped individuals of your generation. I know in my heart that you are now ready and able not just to compete, but to succeed and be leaders in your chosen careers.

With my best wishes for a bright and rewarding future,

Renu Khator
President, University of Houston
Dear Engineering Graduates,

By nature of you being here today, you are among the best, brightest and hardest working engineers the world has to offer.

You have made it through one of the most rigorous engineering programs in the country. During your time as an engineering student, you have collectively spent thousands of hours researching, volunteering and interning in the city of Houston, adding to the strength and vibrancy of our community. When you leave our labs and classrooms to embark on your careers, your professional contributions will have a resounding impact here, in the city of Houston, and around the world.

You are the thinkers, doers and creators of our modern world. You will be the designers, builders, problem-solvers and inventors of our tomorrow. Although you represent a wide variety of backgrounds and disciplines, as you walk across the stage to accept your diploma, you all have one thing in common: you are world-class engineers.

From here, the world is at your fingertips. Work hard, give back and trust in the knowledge you have acquired during your time as a student at the UH Cullen College of Engineering. Everything else will fall into place.

Congratulations, Cougar engineers! I look forward to seeing the impact your bright careers will have on our future and our world. Please stay in touch and fill me in on all of your successes: dean@egr.uh.edu.

Sincerely,

Joseph W. Tedesco
Elizabeth D. Rockwell Dean and Professor
Convocation Speaker

CYNTHIA OLIVER COLEMAN, P.E.
Retired ExxonMobil Chemical Engineer

Cynthia Oliver Coleman, P.E. is a retired ExxonMobil Chemical Engineer and passionate Engineering Volunteer Leader. Since graduating magna cum laude in 1971 and becoming the first Black woman to receive a chemical engineering degree from the University of Houston (UH) Cullen College of Engineering (CCE), she has been on a lifelong mission helping others, especially women and minorities, pursue engineering. She currently serves on the UH Petroleum Engineering Advisory Board, the College’s Campaign Committee for UH $1 Billion Campaign, and the UH Alumni Association Foundation Board. She is a dedicated Advocate & Donor for UH Women in Engineering, and Counselor for UH Society of Women Engineers. She is a past President of the UH Engineering Alumni Association (UH EAA), and Founder & Chair Emeritus of UH EAA Engineers Week that has provided more than $460,000 in scholarships to UH engineering students and student organizations.

In 1967 when Cynthia became a chemical engineering freshman at UH, she was the only woman in her class. Even though she had doubts about engineering, she persevered to obtain her degree. In doing so, she became first in her family to graduate college. She began her career as the first woman engineer in Humble Oil’s East Texas Division which became Exxon’s Oil & Gas Division. During her 33-year ExxonMobil career she was a role model featured in various publications, and she held positions in gas engineering, reservoir engineering, engineering applications, engineering recruiting, and engineering information systems before her retirement in 2004.

Cynthia has received an engineering leadership service award, an outstanding volunteer award, and the recognition of having a women in engineering award named after her. She has been featured in various UH magazines, and she is 1 of 238 women engineers in the country featured in “True Stories of Women Engineers” book used in educational outreach. She is a Life Member of the Society of Women Engineers, National Society of Black Engineers, and Alpha Kappa Alpha Sorority, Inc. Cynthia is married to UH alumnus Leonard, and they are proud parents of UH alumna daughter Kelly.
University of Houston
Cullen College of Engineering

Convocation
Thursday, December 14, 2017, 10 a.m.
Bayou City Event Center

PROCESSIONAL
Grand Marshal Chad Wilson
*Instructional Assistant Professor*
Grand Marshal Leonard Trombetta
*Associate Professor*
Faculty
Banner Bearer
Platform Party
Dean Joseph Tedesco

PRESENTATION OF THE COLORS
UH ROTC

NATIONAL ANTHEM
Moores School of Music

WELCOME AND INTRODUCTORY REMARKS
Joseph W. Tedesco
*Elizabeth D. Rockwell Dean and Professor*

REGENT’S REMARKS
The Honorable Durga Agrawal
*Regent, University of Houston Board of Regents*

CONVOCATION ADDRESS
Cynthia Oliver Coleman
*Cullen College of Engineering Alumnus*

PRESENTATION OF BEST DISSERTATION AWARDS
Suresh Khator
*Associate Dean for Graduate Programs and Computing Facilities*

PRESENTATION AND HOODING OF DOCTORAL CANDIDATES
Mike Lejeune
*Presenter*

PRESENTATION OF MASTER’S CANDIDATES
Mike Lejeune
*Presenter*

PRESENTATION OF BACHELOR’S CANDIDATES
Mike Lejeune
*Presenter*

CLOSING REMARKS
Dean Tedesco

ALMA MATER
Moores School of Music

Event music provided by the Moores School of Music.
Cullen College of Engineering

The University of Houston Cullen College of Engineering, established in 1941, is accredited by the Engineering Accreditation Commission of ABET. The Cullen College is ranked among the top 100 engineering schools in the country and is recognized as one of Best Engineering Schools of 2017 by U.S. News & World Report.

Approximately 5,000 students are enrolled in engineering courses—3,267 undergraduates as well as 1,287 master’s and doctoral students in biomedical, chemical, civil, computer, electrical, environmental, geosensing systems, industrial, mechanical and petroleum engineering. The college also offers interdisciplinary graduate programs in space architecture, subsea, aerospace, materials, and computer and systems engineering. Chemical, mechanical, electrical, computer and civil engineering are ranked among the top graduate programs nationally by U.S. News & World Report.

The mission of the Cullen College of Engineering at the University of Houston is 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.
Administration

Joseph Tedesco
*Elizabeth D. Rockwell Dean and Professor*

Hanadi Rifai
*Associate Dean for Research and Facilities*

Suresh Khator
*Associate Dean for Graduate Programs and Computing Facilities*

Frank Claydon
*Director of the Division of Undergraduate Programs and Student Success*

Metin Akay
*Chair, Department of Biomedical Engineering*

Michael Harold
*Chair, Department of Chemical and Biomolecular Engineering*

Roberto Ballarini
*Chair, Department of Civil and Environmental Engineering*

Badrinath Roysam
*Chair, Department of Electrical and Computer Engineering*

Gino Lim
*Chair, Department of Industrial Engineering*

Pradeep Sharma
*Chair, Department of Mechanical Engineering*

Mohamed Soliman
*Chair, Department of Petroleum Engineering*

Jagannatha Rao
*Director of Online Programs and Extension Services*

Phaneendra Kondapi
*Director of Engineering Programs, UH Katy*

Russell Dunlavy
*Chief Development Officer - UH STEM*

Stephen Bangerter
*Executive Director of Business Operations*

Audrey Grayson
*Executive Director of Communications*

Janice Quiroz-Perez
*Director of the Engineering Career Service Center*

Roshawnda Anderson
*Assistant Dean of Administration*
National Academy of Engineering Members

J.J. Azar
*Petroleum Engineering*

Benton Baugh
*Subsea Engineering*

Charles Cutler
*Chemical and Biomolecular Engineering*

Christine Ehlig-Economides
*Petroleum Engineering*

S. M. Farouq Ali
*Petroleum Engineering*

John Lienhard
*Mechanical Engineering*

Dan Luss
*Chemical and Biomolecular Engineering*

Andrea Prosperetti
*Mechanical Engineering*

Kaushik Rajashekara
*Electrical and Computer Engineering*

James Symons
*Civil and Environmental Engineering*

Jerome Schultz
*Biomedical Engineering*

Ganesh Thakur
*Petroleum Engineering*

Anestis Veletsos
*Civil and Environmental Engineering*

Kaspar Willam
*Civil and Environmental Engineering*

Department of Biomedical Engineering

Mohammad Abidian
*Associate Professor*

Metin Akay
*Professor and Chair*

Yasemin Akay
*Instructional Assistant Professor*

Muayyad Al-Ubaidi
*Professor*

Joseph Francis
*Associate Professor*

Howard Gifford
*Associate Professor*

Nuri Ince
*Assistant Professor*

Kirill Larin
*Professor*

Sheereen Majd
*Assistant Professor*

Elebeoba May
*Associate Professor*

Chandra Mohan
*Professor and Associate Chair*

Muna Naash
*Professor*
Jerome Schultz
Professor
Sergey Shevkoplyas
Associate Professor
Tianfu Wu
Assistant Professor
Yingchuan Zhang
Assistant Professor

Department of Chemical and Biomolecular Engineering

Vemuri Balakotaiah
Professor
Praveen Bollini
Assistant Professor
Patrick Cirino
Associate Professor
Jacinta Conrad
Associate Professor
Vincent Donnelly
Professor
Demetre Economou
Professor
Lars Grabow
Associate Professor
Michael Harold
Professor and Chair
Alamgir Karim
Professor
Ramanan Krishnamoorti
Professor

Dan Luss
Professor
Michael Nikolaou
Professor
Mehmet Orman
Assistant Professor
Jeremy Palmer
Assistant Professor
Jeffrey Rimer
Associate Professor
Megan Robertson
Associate Professor
Navin Varadarajan
Associate Professor
Peter Vekilov
Professor
Richard Willson
Professor

Department of Civil and Environmental Engineering

Roberto Ballarini
Professor and Chair
Abdeldjelil Belarbi
Professor
Mina Dawood  
*Associate Professor*

Egor Dontsov  
*Assistant Professor*

Craig Glennie  
*Associate Professor*

Reagan Herman  
*Instructional Associate Professor*

Thomas Hsu  
*Professor*

Yandi Hu  
*Assistant Professor*

Konrad Krakowiak  
*Assistant Professor*

Hyongki Lee  
*Associate Professor*

Arturo Leon  
*Associate Professor*

Stacey Louie  
*Assistant Professor*

Yi-Lung Mo  
*Professor*

Kalyana Nakshatrala  
*Associate Professor*

Hanadi Rifai  
*Professor and Associate Dean*

William Rixey  
*Associate Professor and Associate Chair*

Debora Rodrigues  
*Associate Professor*

Ramesh Shrestha  
*Professor*

Joseph Tedesco  
*Professor and Dean*

Cumarswamy Vipulanandan  
*Professor*

Keh-Han Wang  
*Professor*

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**Department of Electrical and Computer Engineering**

Jiming Bao  
*Associate Professor*

Jiefu Chen  
*Assistant Professor*

Aaron Becker  
*Assistant Professor*

Jinghong Chen  
*Associate Professor*

Stanko Brankovic  
*Associate Professor*

Yuhua Chen  
*Associate Professor*

Ji Chen  
*Professor*

Frank Claydon  
*Professor and Director*
Cullen College of Engineering

FACULTY

Jose Contreras-Vidal  
Professor

Rose Faghih  
Assistant Professor

Xin Fu  
Associate Professor

Zhu Han  
Professor

Thomas Hebert  
Associate Professor

David Jackson  
Professor

Harish Krishnamoorthy  
Assistant Professor

Han Le  
Professor

Huang Quang Le  
Instructional Assistant Professor

Jung Uk Lim  
Instructional Assistant Professor

Dmitri Litvinov  
Professor

Stuart Long  
Professor

David Mayerich  
Assistant Professor

Hien Nguyen  
Assistant Professor

Miao Pan  
Assistant Professor

Shin-Shem Pei  
Professor

Saurabh Prasad  
Assistant Professor

Kaushik Rajashekara  
Professor

Badrinath Roysam  
Professor and Chair

Paul Ruchhoeft  
Associate Professor

Xiaonan Shan  
Assistant Professor

David Shattuck  
Associate Professor

Bhavin Sheth  
Associate Professor

Wei-Chuan Shih  
Associate Professor

Leonard Trombetta  
Associate Professor and Associate Chair

John Wolfe  
Professor

Yan Yao  
Associate Professor

Wanda Zagozdzon-Wosik  
Associate Professor

Department of Industrial Engineering

Christopher Chung  
Associate Professor

Qianmei Feng  
Associate Professor
Ali Kamrani
Associate Professor
Suresh Khator
Professor and Associate Dean
Taewoo Lee
Assistant Professor
Gino Lim
Professor and Chair
Ying Lin
Assistant Professor

Jiming Peng
Associate Professor
Lawrence Schulze
Associate Professor
Randal Sitton
Instructional Associate Professor
Yaping Wang
Instructional Assistant Professor

Department of Mechanical Engineering

Ashutosh Agrawal
Associate Professor
Daniel Araya
Assistant Professor
Haleh Ardebili
Associate Professor
Richard Bannerot
Professor
Theocharis Baxevanis
Assistant Professor
Christina Chang
Instructional Assistant Professor
Xuemei Chen
Instructional Assistant Professor
Yi-Chao Chen
Professor
Zheng Chen
Assistant Professor

Matthew Franchek
Professor
Hadi Ghasemi
Assistant Professor
Karolos Grigoriadis
Professor
Phaneendra Kondapi
Instructional Professor and Director
Yashashree Kulkarni
Associate Professor
Dong Liu
Associate Professor
Holley Love
Instructional Assistant Professor
Philippe Masson
Assistant Professor
Anastassios Mavrokefalos
Assistant Professor
Ralph Metcalfe  
Professor

Rodolfo Ostilla Monico  
Assistant Professor

Andrea Prosperetti  
Professor

Jagannatha Rao  
Associate Professor,  
Associate Chair and Director

Jae-Hyun Ryou  
Assistant Professor

Venkat Selvamanickam  
Professor

Pradeep Sharma  
Professor and Chair

Gangbing Song  
Professor

Li Sun  
Professor

Su Su Wang  
Professor

Kenneth White  
Professor

Di Yang  
Assistant Professor

Cunjiang Yu  
Assistant Professor

Guan Qin  
Associate Professor

Ahmad Sakhaee-Pour  
Assistant Professor

Mohamed Soliman  
Professor and Chair

Ganesh Thakur  
Professor

Huai Wang  
Instructional Assistant Professor

George Wong  
Associate Professor

Department of Petroleum Engineering

Christine Ehlig-Economides  
Professor

S. M. Farouq Ali  
Professor

Lori Hathon  
Assistant Professor

Dimitrios Hatzignatiou  
Professor

Konstantinos Kostarellos  
Associate Professor

Kyung Jae Lee  
Assistant Professor

Michael Myers  
Associate Professor
Division of Undergraduate Programs and Student Success

Daniel Burleson  
*Instructional Assistant Professor*

Diana de la Rosa-Pohl  
*Instructional Assistant Professor*

Jerrod Henderson  
*Instructional Assistant Professor*

Brian Metrovich  
*Instructional Associate Professor*

Erin McCave  
*Instructional Assistant Professor*

Chad Wilson  
*Instructional Associate Professor*
Best Ph.D. Dissertation Award

Summer 2017 and Fall 2017 Graduates

This semester, we have two outstanding dissertation award winners. A plaque and a check for $1,000 will be given to the following two individuals:

Rui Li,
*Ph.D. in Chemical and Biomolecular Engineering*

**Dissertation Title:** Multifaceted Approaches to Tailor Zeolite Properties and Elucidate the Role of Precursors in Nonclassical Crystallization

**Dissertation Advisors:** Dr. Jeffrey Rimer

Meysam Heydari Gharahcheshmeh
*Ph.D. in Materials Science and Engineering*

**Dissertation Title:** Structural and Electromagnetic Study of Heavily Doped ZR-Added Rebco Coated Conductors Fabricated by Reel-to-Reel MOCVD

**Dissertation Advisors:** Dr. Venkat Selvamanickam
The Honors College Honors

The Honors College at the University of Houston offers students special opportunities to develop their academic abilities. Below are the Honors College honors designations.

University Honors with Honors in Major
Students who complete the Honors College curriculum (36 hours) and complete a senior honors thesis.

University Honors
Students who complete the Honors College curriculum and elect not to complete a senior honors thesis.

Collegiate Honors and Collegiate Honors with Honors in Major
Students who fulfill the requirements for the honors program in the college of their major, including 21 hours of honors courses; who complete an Honors College minor, or who complete 21 hours of approved honors courses. If students also complete a senior honors thesis, they graduate with Collegiate Honors with Honors in Major.

Membership in The Honors College and Membership in The Honors College with Honors in Major
Students who affiliate with the Honors College during their undergraduate years and complete fewer than 21 hours of honors courses. If students also complete a senior honors thesis and fulfill the requirements of their major with distinction, they graduate with Membership in The Honors College with Honors in Major.

Honors in Major
Students who complete a senior honors thesis but are not members of the Honors College.
Summer 2017 Honors Recipients

Collegiate Honors
Tri Huu Nguyen

Membership in The Honors College
Fernando Sergio Curiel

Fall 2017 Honors Recipients

University Honors with Honors in Major
Chandika Silva

University Honors
Cristian Antonio Aparicio
Laura L. Clark
Victoria Y. Dieu
Thomas Ing Hsu
Kevin J. McEnery
Walter A. Rodriguez
Abdullah Rami Tuffaha
Andrew Vodinh
Jonathan Boris Zelenko

Collegiate Honors
Michael S. Alexander
Shubhangi S. Mundhada
Honors

Undergraduate students who have completed the graduation requirements of the Honors College, including a senior honors thesis or senior honors project, are graduated with “University Honors with Honors in Major.” Undergraduate students who have completed all requirements of the Honors College except for the thesis or project are graduated with “University Honors.”

Undergraduate students who successfully complete a senior honors thesis or senior honors project and who are not members of the Honors College are graduated with “Honors in Major.”

Undergraduate students who complete their degree requirements under catalogs beginning in Fall 2010 will graduate with the stated academic honors if they achieve the following grade point averages earned in the last fifty-four (54) hours (all of which must be A, B, C,… letter grade courses) completed at the University of Houston. Grades of S, U, I and W are not assigned grade point values and are not used in the computation of the grade point average.

- 3.90 to 4.0  Summa Cum Laude (with highest honors)
- 3.70 to 3.89  Magna Cum Laude (with high honors)
- 3.50 to 3.69  Cum Laude (with honors)

Further, the honors calculation will include all hours completed in the semester in which the first of those final fifty-four (54) hours was completed.
Fall 2017

**Doctor of Philosophy in Chemical Engineering**

FNU Aseem
Oxidative Coupling of Methane over Mixed Metal Oxide Catalysts: Thermokinetic and Oxygen Distribution Effects
**Advisor:** Dr. Michael P. Harold

Karthik Venkata Rama Krishna Dadi
Transient and Steady-State Light-Off Features During Co-Oxidation of CO and HCs in DOC
**Advisors:** Dr. Vemuri Balakotaiah and Dr. Dan Luss

Shuai He
Molecular Modeling of Shale Gas Transport Mechanisms in Shale Nanopores
**Advisor:** Dr. Guan Qin

Sashank Kasiraju
Catalysis of Imperfections: Importance of the Nature and Abundance of Defects in Oxides and Chalcogenides for Diverse Applications
**Advisor:** Dr. Lars C. Garbow

Rui Li
Multifaceted Approaches to Tailor Zeolite Properties and Elucidate the Role of Precursors in Nonclassical Crystallization
**Advisor:** Dr. Jeffrey D. Rimer

Shobhit Misra
Building Models of Process Systems: Applications in Control & Design
**Advisor:** Dr. Michael Nikolaou

**Doctor of Philosophy in Civil Engineering**

Niousha Amani
Characterization and Modeling the Dynamic Responses, Gas Leakage and Contamination on the Behavior of the Smart Cement Composite
**Advisor:** Dr. Cumaraswamy Vipulanandan

Mohammed Fathi Mohammed Bashar
Subcritical Flow Computation in an Open-Channel Network with Dividing Junctions and Sluice Gates
**Advisor:** Dr. Keh-Han Wang

Jassim Mustafa Qadir Jaf
Interaction of Solitary Waves with a Submerged Breakwater and Experimental Visualizations of Induced Vortex Characteristics
**Advisor:** Dr. Keh-Han Wang

Prakash Poudel

**Doctor of Philosophy in Electrical Engineering**

Md Masud Parvez Arnob
3D Plasmonic Nanoarchitectures: Fabrication, Characterization, and Applications
**Advisor:** Dr. Wei-Chuan Shih

Nikunj Arunkumar Bhagat
Brain-Machine Interface with Closed-Loop Neuromuscular Stimulation for Grasping in Stroke and Spinal Cord Injury Survivors
**Advisor:** Dr. Jose L. Contreras-Vidal

Kedar Balaji Grama
Computational Analysis of Remodeling in the Rat Brain after Traumatic Brain Injury
**Advisor:** Dr. Badrinath Roysam
Qicheng Huang
Power Sharing and Power Quality Improvement in Parallel Connected Power Converters in the Microgrid
ADVISOR: Dr. Kaushik Rajashekara

Lianyang Li
mTBI Detection and Assessment based on EEG/MEG Analysis
ADVISOR: Dr. George Zouridakis

Lintong Li
Development of an Absorbing Radio Frequency Shield for Safe Magnetic Resonance Imaging
ADVISOR: Dr. Ji Chen

Xinyu Liu
Transparent and Non-transparent Microstrip Antenna on a CubeSat
ADVISOR: Dr. David R. Jackson

Kaveh Shervin
Development of High Efficiency Low Cost III-V Solar Cells
ADVISOR: Dr. Alexandre Freundlich

Radwa Aly Mohammed Hussein Sultan
Utilizing Full Duplex Multiple Antenna in Heterogeneous Networks
ADVISOR: Dr. Zhu Han

Hsu-Hsiang Wu
Evaluation & Exploration of Complex Subterranean Formations Using Numerical Modeling: Azimuthal EM Deep Resistivity Applications
ADVISOR: Dr. Ji Chen

Junchao Wu
Design and Analysis of Hardware-based Scheduler and Multi-photon Quantum Cryptography Protocol
ADVISOR: Dr. Yuhua Chen

Huaqing Zhang
A Hierarchical Game Framework for Distributive Resource Allocation in Future HetNet
ADVISOR: Dr. Zhu Han

**Doctor of Philosophy in Geosensing Systems Engineering and Sciences**

Xiao Wang
Filtering of Single Photon LiDAR Data
ADVISOR: Dr. Craig Glennie

**Doctor of Philosophy in Materials Engineering**

Su-Chi Chang
Synthesis and Characterization of Two Dimensional Transition Metal Dichalcogenide Materials
ADVISOR: Dr. Shin-Shem Steven Pei

Saman Gheytani
Long Cycle-Life Aqueous Batteries Enabled by Organic Electrode Materials
ADVISOR: Dr. Yan Yao

Yao Yao
Hetero-Epitaxial Growth of Ge and ZnO on Metal Substrates by Reel-to-Reel Physical Vapor Deposition for Flexible Device Fabrication
ADVISOR: Dr. Venkat Selvamanickam

**Doctor of Philosophy in Mechanical Engineering**

Mete Mutlu
Dynamic Analysis of Subsea Blowout Preventer Fluid Power System
ADVISOR: Dr. Matthew A. Franchek
Cullen College of Engineering
CANDIDATES FOR GRADUATION

Peter Alexander Smith
ADVISOR: Dr. Ralph W. Metcalfe

Milad Yarali
Thermal and Thermoelectric Transport Measurements of Carbon Nanotube Networks, Silicon Nanomembranes, and Transition Metal Dichalcogenides
ADVISOR: Dr. Anastassios Mavrokefalos

Master of Science in Aerospace Engineering
Leonard Perez

Master of Science in Biomedical Engineering
Zhilin Guo
Jeffrey Sun

Master of Chemical Engineering
Diane Lynn Hayes
Johannes Kawi
Zerayacob Barsula Sermollo
Fahad Nayaz Sheriff

Master of Science in Chemical Engineering
Mohammed Masoud E. Alamiri

Master of Science in Civil Engineering
Hazeem Amer
Amit Awal
Shaima Mohammed Aziz Aziz
Vladimir Berka
Garrett Powell Best

Vikhyath Kumar Gattu
Abrar Siddiq Hazari
Joel Brian Huber
Owanari Oluwakemi Iyalla
Shivani Pokharel
Bishow Pant

Master of Science in Computer and Systems Engineering
Akhil Kumar Reddy Chityala
Wilson Paul Deshapaga
Jih-Tsen Lin
Ashoka Vardhan Pasupula
Krishna Priya Peddi
Giridhar Gourav Puttamsetty
Aashritha Vundyala

Master of Electrical Engineering
Lijuan Hou
Sree Sai Ram Narayana
Sudarsan Sadasivuni

Master of Science in Electrical Engineering
Krishnagopal Ashok
Venkata Gowtam Srivatsav Chemudupati
Anusha Chinni
Seyeddavar Daeinejad
Hieu Trong Dinh
Mayuri Harikumar
Yashraja Reddy Obulam
Cristobal A. Pena
Sinh Phan Pham
Hrishikesh Prabhu
Pallavi Rawat
Jorge Rivera
Arvindhan Sayapathy  
Sayandeep Sen  
Sayeed Shakaib Ahmed  
Sulav Sharma Gautam  
Manish Reddy Sudini  
Mohammad M. Sultan  
Xiaohui Wang  
Zhiheng Zuo

**MASTER OF SCIENCE IN ENVIRONMENTAL ENGINEERING**

Sergio De La Fuente  
Sai Sheetal Garlapati  
Divya Dharmendra Khandelwal  
Eric Minh Le  
Peter Shashank Lyman  
Jose G. Mendiola  
Annie T. Nguyen  
Akhil Reddy Vakiti

**MASTER OF INDUSTRIAL ENGINEERING**

Akshay Agrawal  
Sai Nishanth Reddy Anumandla  
Laxmi Bhandari  
Harsh Kalpesh Desai  
Sandeep Gundla  
Sajal Sanjay Gupta  
Yingzhe Huang  
Mohammed Noor Ul Haq Hussain  
Vinod Kaushal Irukulla  
Chaitanya Kumar Isukala  
Reza Jarvand  
Sai Chaitanya Kantipudi  
Lokesh Karthikeyan  
Nithin Prakash Kashyap  
Lizyle Leslie Machado  
Gangadhar Mahalingappa  
Shashank Manghat  
Suraj Mattoo  
Aravindhakshan Mohan  
Nikitha Muddapuram  
Sai Krishna Manish Munnangi  
Satya Sai Sandeep Mupparaju  
Parvathy Muralidharan  
Harish Uday Nagesh  
Srihari Nalla Nagula  
Sravani Nanduri  
Madhav Jayeshkumar Pandya  
Poojan Ajaykumar Patel  
Hardik Maganbhai Pokal  
Lokanadh Sasank Prabha  
Nirmal Kumar Ravichandran  
Sayantrini Saha  
Siddhartha Sarkar  
Dinesh Sigireddy  
Dinesh Babu Sivasamy  
Sai Ravi Krishna Subramani  
John Pradeep Sugumar  
Tipu Sultan  
Tony Thomas Pattathil  
Sai Teja Tumuluru  
Bharat Vadapalli

**MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING**

Linh Quoc Vu

**MASTERS OF SCIENCE IN MATERIALS SCIENCE AND ENGINEERING**

Anjali Bhattarai  
I. Kang Wu
Cullen College of Engineering
CANDIDATES FOR GRADUATION

MASTER OF SCIENCE
IN MECHANICAL ENGINEERING

Nnamdi Thaddeus Agbo
Yufei Ai
Omar Ashraf Ali
Ravi Teja Chaganti
Luis Alfonso Daza
Juan D. Delgadillo Morales
Ramkumar Ethirajulu
Ubong Etukudo
Mauricio Gonzalez
Neeraj Gupta
Graham Hunter
Christopher James Ingold
Mehul Jain
Abhishek Kaurav
Edison Lamsal
Mukhtar Mobolaji Mustapha
Jeison Yamit Palomino
Keyur Tarunkumar Patel
Vedang Dipakbhai Patel
Shadman Hussain Qaisar
Anand Rathnam
Ahmed Khan Salman
Kishan Prabhakar Savant
Uduakobong Patrick Solomon
Sweekrith Suresh
Arpan Upadhyaya
Venkata Sai Raviteja Vankadara
Bajio Varghese Kaleeckal
Deepankar Verma
Reza Faraji
Utkarsh Gupta
Hussein Amr Khorshed
Samuel Lau
Zhaosheng Lin
Haoran Liu
Andrea Alejandra Mateos
John E. Musa
Olabode J. Otunola
Connor A. Rivard
Aakash Subhashbhai Shah
Vicky Singla
Robert Strong
Linan Su
Rahul Pravin Umran
Chukwuma Carl Ukegbe
Sai Sharan Yalamarty
Yeling Zhou
Yunbo Zhou
Zhenxing Zhou
Fares Ziari

MASTER OF SCIENCE
IN PETROLEUM ENGINEERING

Bhaskar Jyoti Bhargav
Ankit Bhowmick
Panuswee Naushir Dwivedi
Ravi Khandelwal
Sunit Mathur
Nitya Mohan
Uche Uche Junior Ohafia
Bharat Thakur

MASTER OF SCIENCE
IN SPACE ARCHITECTURE

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Ajibola Jibril-Temiloluwa Oladipo
Salmat Kehinde Oladipupo
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ADVISOR: Dr. Elebeoba E. May

Su Liu  
Investigation of High Frequency Oscillations in Epilepsy Using Computational Intelligence  
ADVISOR: Dr. Nuri Ince

Ilknur Telkes  
Investigation of Spatio-Spectral Dynamics of Local Field Potentials in Parkinson’s Disease  
ADVISOR: Dr. Nuri Firat Ince

DOCTOR OF PHILOSOPHY  
IN CHEMICAL ENGINEERING

Michael Corey Byington  
On Protein Crystal Nucleation Precursors  
ADVISORS: Dr. Peter G. Vekilov and Dr. Jacinta C. Conrad

Sanbir Kaler  
Etching of Silicon, Silicon Nitride, and Atomic Layer Etching of Silicon Dioxide using Inductively Coupled Plasma Beams  
ADVISORS: Dr. Vincent Donnelly and Dr. Demetre J. Economou

Mengmeng Li  
Spatio-temporal Features of Combined NOx Storage and Reduction and Selective Catalytic Reduction  
ADVISOR: Dr. Michael P. Harold

Qiaowei Lou  
Optical Spectroscopy of CH3F/O2, CH3F/CO2 and c-C4F8 Inductively Coupled Plasmas  
ADVISORS: Dr. Vincent M. Donnelly and Dr. Demetre J. Economou

Vivek Yadav  
Controlling the Molecular Weight Distribution of Polymer Brushes to Tune Stimulus-Response and Bacterial Adhesion  
ADVISOR: Dr. Jacinta C. Conrad and Dr. Megan L. Robertson

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Masoud Dehghani Champiri
Crash Analysis of Degraded Concrete Containment Structures
ADVISOR: Dr. Kaspar Willam

Ahmed Amine El Kacimi El Hassani
Nondestructive Real-Time Interface Bonding Characterization between Fiber Reinforced Polymer Strands and Highly Sensing Cement and Polymer Composite Matrix during Loading and Chemical Degradation
ADVISOR: Dr. Cumaraswamy Vipulanandan

Yan Miao
Hydrodynamic Interactions between a Solitary Wave and a Partially Submerged Structure of Either a Thin Porous Wall or a 2-D Finite-Length Body with Attached Dual Porous Walls
ADVISOR: Dr. Keh-Han Wang

Mir Mohammad Reza Mousavi
Plasticity Based Formulations for Pressure Sensitive Materials
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Jingting Li
Innovations in Raman Spectroscopy Instrumentation and Applications in Biosensing and Plasmonic Engineering
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Kuang Qin
A Hierarchical Game Framework for Distributive Resource Allocation in Future HetNet
ADVISOR: Dr. Jarek Wosik

Ning Wang
A New Generation Unified Framework for Remote Laboratory System Development
ADVISOR: Dr. Gangbing Song

Fusheng Zhao
Advances in Lithographically Patterned Plasmonic Nanoparticles: Fabrication, Characterization, Modeling, and Applications of Porous/Nonporous Nanoparticles and Arrays
ADVISOR: Dr. Wei-chuan Shih

Xiong Zhou
Semi-Supervised and Deep Learning in Optimal Subspaces for Classification of Disparate Hyperspectral Data
ADVISOR: Dr. Saurabh Prasad

DOCTOR OF PHILOSOPHY
IN ENVIRONMENTAL ENGINEERING

Hang Ngoc Nguyen
Graphene and Graphene Oxide Toxicity and the Impact to Environmental Microorganisms
ADVISOR: Dr. Debora Frigi Rodrigues

DOCTOR OF PHILOSOPHY
IN INDUSTRIAL ENGINEERING

Guven Kaya
Large Scale Optimization Models and Algorithms in Healthcare Delivery
ADVISOR: Dr. Gino J. Lim

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Meysam Heydari Gharahcheshmeh
Structural and Electromagnetic Study of Heavily Doped ZR-Added Rebco Coated Conductors Fabricated by Reel-to-Reel MOCVD
ADVISOR: Dr. Venkat Selvamanickam

Yan Jing
ADVISOR: Dr. Yan Yao
Min Lu  
Elastomer Degradation in Chemically Reactive Environment under Elevated Temperature and Pressurized Condition  
**ADVISOR:** Dr. Li Sun

**Doctor of Philosophy in Mechanical Engineering**

Himani Agrawal  
Atomistic and Continuum Reinvestigation of Protein Membrane Interactions  
**ADVISOR:** Dr. Pradeep Sharma

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Chika A. Okolo

**Master of Chemical Engineering**

Rahul Radhakrishna Pillai

**Master of Science in Chemical Engineering**

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Fernando Sergio Curiel
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Hristo Ivanov Kaludov
Areeb Hussain Khan
Mohammad Imran Khan
Tri Huu Nguyen
Corbin Mitchell Stephens
Hany Daniel Tabsch Herbas
Michelle D. Wood

**Bachelor of Science in Biomedical Engineering**
Mahdi Saleh A. Alqaffas

**Bachelor of Science in Chemical Engineering**
Francisco Ivan Caballero

**Bachelor of Science in Computer Engineering**
David Ali Oshkoohi

**Bachelor of Science in Electrical Engineering**
Muhammad Bilal Balagamwala

**Bachelor of Science in Industrial Engineering**
Hussain Abdullah H. Almuhanna
Brandon Kit Kwan
Haitham Mohamad Musa

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All hail to thee,
Our Houston University.
Our hearts fill with gladness
When we think of thee.
We’ll always adore thee
Dear old varsity.
And to thy memory cherished,
True we’ll ever be.

Words and music by Harmony Class of 1942
Academic Regalia

THE ATTIRE of the participants dates back to the 12th and 13th centuries, when universities began to be established in Europe. In 1321, at the University of Coimbra in Portugal, gowns were required attire not just for faculty members, but also for students of all classifications. Other European universities started requiring gowns, but there was not a standard design. In 1887, Gardner Leonard volunteered to design the graduation gowns for his class at Williams College. His design, as well as the standardization of colors to denote areas of study, were later adopted by an intercollegiate commission, and are the ones used today by most United States colleges and universities.

GOWNS. The bachelor’s gown has long pointed sleeves; the master’s gown has an oblong sleeve open at the wrists (some older gowns may be open near the upper part of the arm); the doctoral gown is fuller than the others with full-length velvet panels on the front and three velvet crossbars on each sleeve in black or in the color distinctive to the academic discipline of the wearer’s degree.

HOODS. The hood, worn by master’s and doctoral degree recipients, drapes over the shoulders and down the back and indicates the academic discipline to which the degree pertains; the field of the hood denotes the university that conferred the degree. The size of the hood indicates the level of the degree.

CAPS. The black mortarboard is the most common cap used. The tassel fastened to the center of the cap is black, although it may be the color appropriate to the subject of the degree. The tassel for the doctoral cap may be of gold thread. Candidates for bachelor’s degrees wear the tassels on the right side, shifting it to the left side after being awarded their degrees. Candidates for master’s and doctoral degrees wear their tassels on the left side from the outset and do not shift them after receiving their degrees.

| BACHELOR’S DEGREES | Gown: Black | Tassel: Orange |
| MASTER’S DEGREES   | Gown: Black | Hood: Orange  | Tassel: Black |
| DOCTORAL DEGREES   | Gown: Black | Hood: Dark Blue | Tassel: Old Gold |
A special thanks to the Convocation Committee and volunteers who assisted in making this memorable event possible.

Convocation Committee

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Convocation Co-Coordinator and Administrative Assistant

Brandon Green
Convocation Co-Coordinator and Academic Records Coordinator

Shirley Mate
Academic Advisor III

Miranda Vernon-Harrison
Director of Graduate Student Affairs

Roshawnda Anderson
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