



M.S. AND PH.D. IN

# MECHANICAL ENGINEERING

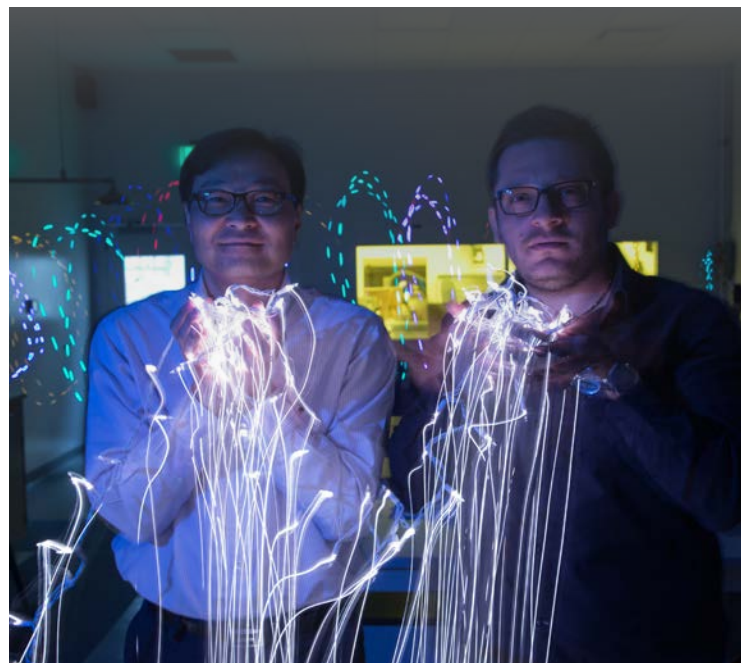
ME.UH.EDU

## *ENGINEERING THE MECHANICS OF OUR WORLD*

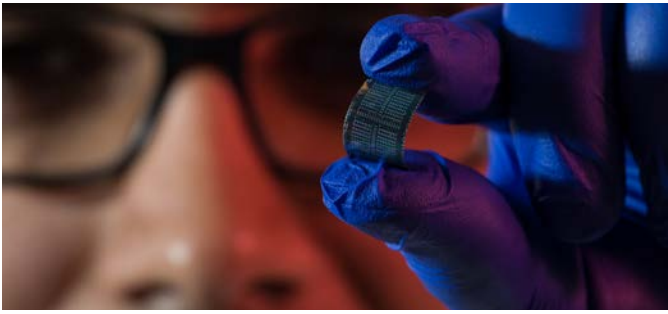
### MECHANICAL ENGINEERING AT THE UNIVERSITY OF HOUSTON

The graduate program in mechanical engineering provides students with an educational experience grounded in the engineering sciences and focused on producing a professional capable of systematically applying those sciences to solve real-world problems. The mechanical engineering graduate program encompasses advanced study and research in the areas of applied mechanics, control of dynamical systems, materials science, thermal and fluid sciences, and biomedical engineering. Graduate students are taught by the world's leading mechanical engineering researchers and are prepared to take on leadership positions in industry, government or academia in the Houston region and beyond.

Career opportunities in mechanical engineering are excellent, especially in the city of Houston, the Energy Capital of the World. Alumni of the graduate program in mechanical engineering can be found in leadership positions in a variety of different fields throughout the Houston-area and around the world.



Cullen College of Engineering  
UNIVERSITY OF HOUSTON



## RESEARCH EXCELLENCE

Research in the Department of Mechanical Engineering is motivated by the challenges of the 21st century and grounded in the fundamentals of the mechanical sciences. Our general goal is the advancement of multi-scale engineering, along with the creation and application of an engineering knowledge base that spans a broad range of scales, from nano-micro structures to complex large-scale systems. Multi-scale engineering requires the integration of knowledge across traditional engineering disciplines as well as across the natural range of physical scales. Our faculty strengths, when grouped by traditional disciplines, are in the areas of:

- coatings and materials
- energy systems, infrastructure and renewables
- biomechanics, sensors and devices
- mechanics and dynamics
- computational mechanics
- thermal phenomena

## GRADUATE DEGREES OFFERED

The Graduate Program in Mechanical Engineering provides our students with an educational experience grounded in the engineering sciences and focused on producing a professional capable of systematically applying those sciences to solve real-world problems. We are also home to the college's interdisciplinary programs in Aerospace Engineering, Space Architecture and Subsea Engineering. Degree programs include:

- Doctor of Philosophy in Mechanical Engineering
- Master of Science (thesis and non-thesis programs) in Mechanical Engineering, Aerospace Engineering and Space Architecture
- Master of Mechanical Engineering (MME)
- Master of Science in Subsea Engineering
- Dual Master Degree in Mechanical and Aerospace Engineering
- Dual Master Degree in Aerospace Engineering and Space Architecture
- Dual Master Degree in Mechanical and Subsea Engineering

Qualified applicants should have backgrounds in engineering, mathematics, and the physical sciences. Part-time graduate study is encouraged, and several of our graduate courses are offered as evening classes (4:00 PM and later).



## FACULTY EXPERTISE

Our award-winning faculty are constantly performing cutting-edge research, and are always seeking hard-working graduate researchers to join them in their labs. To view a full list of faculty by research area, please visit: [www.me.uh.edu/research/faculty-expertise](http://www.me.uh.edu/research/faculty-expertise)

## FACILITIES & LABORATORIES

Located in Engineering Buildings 1 and 2, the Agrawal Engineering Research Building, and at the Technology Bridge, our laboratories are ultra-modern, encompassing the latest in quantification, design, computing, and additive manufacturing instrumentation and technologies. Some of our noteworthy research facilities and laboratories include:

- Advanced Function Materials Laboratory
- Active Materials Research Group
- Bio-inspired Robotics and Control Laboratory
- Dynamics Systems & Control Laboratory
- Energy Devices Fabrication Laboratory
- Engine Control Research Laboratory
- Materials Engineering Laboratory
- NanoTherm Research Group
- Smart Materials & Structures Laboratory

Learn more at: [www.me.uh.edu/research/laboratories-facilities](http://www.me.uh.edu/research/laboratories-facilities)

## CENTERS & CONSORTIA

Our core philosophy is one of partnerships with colleagues from other departments in science and engineering and more broadly in medicine and health. Industry, consortia, and similar collaborative enterprises are at the heart of creative enterprise in our department. Examples include:

- Advanced Superconductivity Manufacturing Institute
- Advanced Manufacturing Institute
- Hewlett Packard Enterprise Data Science Institute
- Texas Center for Superconductivity



## FOR MORE INFORMATION

For more information on eligibility and admissions requirements, please visit [www.me.uh.edu/graduate-program/overview](http://www.me.uh.edu/graduate-program/overview)