UC San Diego
JACOBS SCHOOL OF ENGINEERING

WE MAKE
BOLD POSSIBLE.

We solve the tough challenges no lab, discipline, or company can take on alone.

How we do it

When we collaborate with industry, government and academia, **we actually listen**.

The result: deep interactions and bold collaborations within UC San Diego's **$1.54 billion** research enterprise, throughout San Diego's tech ecosystems, across California, the nation and the world.

We are a **top 10 engineering school** with the creativity and openness necessary to tackle the toughest shared challenges for the public good.

In Franklin Antonio Hall, we created a national model for innovation ecosystems with local roots and international reach.

We are transforming engineering education, at scale

How we do it

We empower one of the largest — and strongest — cohorts of students in the nation to apply engineering and computer science theory to **real-world problems**.

In November 2021, we launched **the Veteran Forge** program. This pilot program is being designed to support qualifying veterans working toward an engineering or computer science degree at the Jacobs School on their path to employment in national security careers and at National Labs.

#10!!!
ENGINEERING SCHOOL
IN THE USA

*2023 U.S.News Rankings of Best Engineering Schools

#2	#2 Public engineering school in California* #6 Public engineering school in the USA*
$218M	Total research expenditures for 2020-2021 at the Jacobs School of Engineering
⅓	One third of our research expenditures come from university-industry research partnerships that drive relevance
16	Industry-sponsored centers and institutes launched in the last 8 years
#1	The Jacobs School of Engineering at UC San Diego is the largest engineering school in California, and #2 on the West Coast, according to the latest enrollment data from ASEE.
9,594	Engineering Students (Fall 2021) 6,284 BS / 1,901 MS / 1,409 PhD
3,019	Engineering Degrees (2020-2021) 1,645 BS / 1,183 MS / 191 PhD
275	27 New faculty hired 2020-2021 140 faculty hired in the last 8 years

BIOENGINEERING

28 Faculty
557 Undergraduates
408 Graduate students

- autodigestion
- bioinformatics
- biomaterials / biomechanics
- cell / tissue mechanics
- biophotonics / biosensors
- cardiac mechanics
- cardiovascular engineering and imaging
- cartilage / tissue engineering
- genomic engineering
- metabolic bioengineering
- microcirculation / transfusion medicine
- molecular / cellular bioengineering
- nanotechnology
- neuroengineering
- regenerative medicine / stem cells
- systems bioengineering
- translational bioengineering

MECHANICAL & AEROSPACE ENGINEERING

57 Faculty
1,311 Undergraduates
631 Graduate students

- aerospace technologies
- biomaterials, bio-inspired tech
- cell / membrane mechanics
- control and optimization
- combustion
- high-energy materials processing
- materials for extremes
- medical device technologies
- MEMS for extremes
- networked control systems
- renewable and carbon-neutral energy technologies
- robotics and design
- solid and soft matter mechanics of metamaterials
- thermo-physics, heat and mass transfer
- tribology for memory storage
- turbulence, geophysical flows, macro/microfluidic flows

COMPUTER SCIENCE & ENGINEERING

71 Faculty
1,873 Undergraduates
980 Graduate students

- artificial intelligence / machine learning
- bioinformatics
- computer architecture
- computer science pedagogy
- databases and info mgmt.
- embedded systems, VLSI/CAD
- graphics and vision
- human-computer interaction
- programming languages
- robotics
- security and cryptography
- software engineering
- systems and networking
- theoretical computer science

NANOENGINEERING

29 Faculty
622 Undergraduates
180 Graduate students

- advanced nanomaterials
- computational materials science
- nanobiotechnology
- nanomanufacturing
- nanomedicine
- nanophotonics
- nanorobotics
- nanosensors
- nanotechnologies for energy storage and conversion
- stretchable, flexible electronics
- sustainable nanoengineering
- wearable devices

ELECTRICAL & COMPUTER ENGINEERING

65 Faculty
1,374 Undergraduates
938 Graduate students
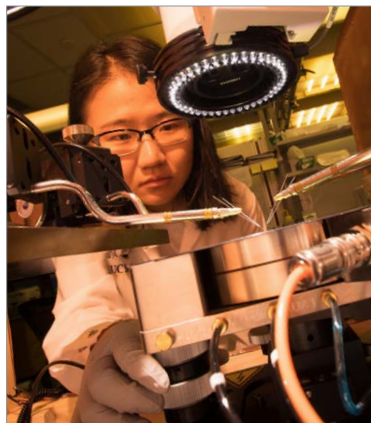
- applied electromagnetics
- bioinformatics / bionanotech
- brain imaging / mapping
- communications systems
- cyber-physical systems security
- electronic circuits / systems
- embedded systems
- intelligent systems / robotics
- machine learning and data science
- magnetic and optical storage
- medical devices and systems
- nanoelectronics
- network infrastructure
- neural interfaces
- photonics / nanophotonics
- power engineering
- signal/image/video processing
- systems energy engineering
- wearable sensors

STRUCTURAL ENGINEERING

25 Faculty
547 Undergraduates
173 Graduate students

- aerospace structures / aviation safety
- biomechanics
- composites / nanomaterials
- computational fluid-structure interaction analysis
- computational mechanics for extreme events damage prediction
- earthquake engineering and infrastructure renewal
- geotechnical engineering / geomechanics
- large-scale experimental research
- multi-hazard mitigation for earthquakes, blasts and more
- risk analysis / visualization / optimization
- structural health monitoring / nondestructive evaluation