UC San Diego

JACOBS SCHOOL OF ENGINEERING

90 NEW FACULTY IN 5 YEARS

2014	2015	2016	2017	2018
19	17	13	26	15

University of California San Diego

15
new faculty in 2018

90
faculty hires in 5 years

Faculty with clear-eyed determination, technical smarts, creativity, and the openness to collaborate **make bold ideas possible.**

That's who we hire at the **Jacobs School of Engineering.**

That's how we'll work in **Franklin Antonio Hall.**

conceptual rendering

Franklin Antonio Hall

A new engineering facility designed for collaborative research, active learning, and technology transfer.

Franklin Antonio Hall is designed to facilitate cross-discipline collaborations that are critical for solving the toughest health, energy, autonomy, security, communications, and materials challenges facing society.

Theory + Practice

"Our Collaboratories for the Digital Future are at the heart of Franklin Antonio Hall. These multi-PI labs will empower our faculty, students and industry partners to bring theory and practice together for ever greater positive impact."

— **Albert P. Pisano**
Dean, UC San Diego Jacobs School of Engineering

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JINHYE BAE

Assistant Professor

Ph.D. University of Massachusetts Amherst

Bae focuses on understanding the deformation and assembly of soft matter at the nano- and micro-scales. Her research integrates the unique characteristics of soft materials such as hydrogels and elastomers into new approaches for applications in biomedical devices, soft robotics, actuators, and sensors.

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NanoEngineering

Previously: Postdoctoral Research Associate, Harvard University

MAZIAR GHAZINEJAD

Assistant Teaching Professor

Ph.D. University of California, Riverside

Ghazinejad applies active learning techniques to develop curricula and pedagogical models in engineering mechanics, design, and materials engineering. He has developed new courses on microanalysis, design, and nanoengineering. His research also focuses on fabrication and device integration of nanomaterials and microelectromechanical systems (MEMS).

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Mechanical & Aerospace Engineering

Previously: Assistant Professor, California State University, Fresno

TAYLOR BERG-KIRKPATRICK

Assistant Professor

Ph.D. University of California, Berkeley

Berg-Kirkpatrick focuses on developing machine learning techniques for understanding structured human data – including language, but also sources like music, historical ciphers, document images, and other complex artifacts. His research group aims to design unsupervised methods for such data that are able to learn without relying on labeled examples.

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Computer Science & Engineering

Previously: Assistant Professor, Carnegie Mellon University

TZU-CHIEN HSUEH

Assistant Professor

Ph.D. University of California, Los Angeles

Hsueh develops analog and mixed-signal integrated circuits for communications systems, data centers, and computing networks. His research focuses on wireline electrical/optical transceivers, channel equalizations, clock-and-data recovery, data-conversion circuits, on-chip performance monitors, and signal processing techniques.

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Electrical & Computer Engineering

Previously: Senior Research Scientist, Intel Corporation

JUSTIN ELDRIDGE

Assistant Teaching Professor

Ph.D. The Ohio State University

Eldridge's research focuses on machine learning theory and artificial intelligence; his Ph.D. thesis developed correctness guarantees for clustering methods. His teaching practice will focus on data science for undergraduate students.

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Computer Science & Engineering

Previously: Presidential Fellow, The Ohio State University

JOHN T. HWANG

Assistant Professor

Ph.D. University of Michigan

Hwang develops optimization algorithms for boosting the efficiency and performance of engineering vehicles and systems. His methods optimize up to tens of thousands of parameters for the design or control of a system. He has applied these methods to the design of commercial airliners, satellites, small electric aircraft, and material systems.

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Mechanical & Aerospace Engineering

Previously: Research Engineer, NASA Glenn Research Center

AARON FRAENKEL

Assistant Teaching Professor

Ph.D. University of California, Berkeley

Fraenkel uses machine learning and experimental design to study large-scale abusive behaviors on the internet, particularly robot-driven events. His teaching expertise is in the end-to-end practice of data science, drawing from his industry experience with cybersecurity, anti-fraud, and anti-abuse systems.

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Computer Science & Engineering

Previously: Senior Scientist, Amazon.com

TANIA K. MORIMOTO

Assistant Professor

Ph.D. Stanford University

Morimoto's research interests include robotics, haptics, and human-in-the-loop interfaces. Her main work involves the design and control of flexible or soft robots for increased dexterity and accessibility in unstructured environments, including minimally invasive surgical interventions.

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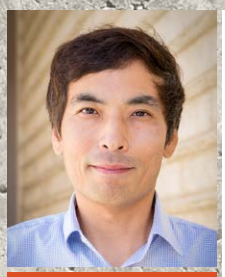
Mechanical & Aerospace Engineering

Previously: Ph.D. Stanford University



KENJI NOMURA

Assistant Adjunct Professor

Ph.D. Tokyo Institute of Technology

Nomura aims to develop next-generation electronic devices that are transparent, flexible and low-cost, for applications such as solar cells, wearable sensors, and displays. His research combines experimental and theoretical methods to design and develop new oxide semiconductor materials and high-performance optoelectronic devices.

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Electrical & Computer Engineering

Previously: Principal Engineer, Obsidian Sensors, Inc.

OLIVER SCHMIDT

Assistant Professor

Ph.D. University of Stuttgart

Schmidt specializes in computational flow physics with an emphasis on flow instability, direct numerical simulation, and modal decomposition techniques. The goal of his research is to synergize data-driven modal decomposition and stability theory to facilitate physical understanding, modeling, and control of complex flows.

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Mechanical & Aerospace Engineering

Previously: Postdoctoral Scholar, California Institute of Technology

JON POKORSKI

Associate Professor

Ph.D. Northwestern University

Pokorski exploits both polymer chemistry and engineering to make materials that tackle complex biomedical problems. The Pokorski lab is particularly interested in engineering low-cost devices for immunotherapy, developing the next generation of polymer-conjugated protein therapeutics, and implementing novel chemistry for advanced wound dressings.

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NanoEngineering

Previously: Assistant Professor, Case Western Reserve University

SHABNAM SEMNANI

Assistant Professor

Ph.D. Stanford University

Semnani focuses on characterization and modeling of geomaterials across scales, and development of multi-scale and multi-physics models through a combination of computational, experimental, and statistical techniques. Some of the applications of her work include carbon sequestration, hydrocarbon recovery, and geothermal energy production.

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Structural Engineering

Previously: Ph.D. Stanford University

ABHISHEK SAHA

Assistant Professor

Ph.D. University of Central Florida

Saha's research focuses on fundamentals of combustion and fluid mechanics with application in propulsion, energy, printing, and materials synthesis. He studies flame-dynamics towards clean and efficient operation of car/aircraft engines. He also investigates droplet-dynamics to improve inkjet printing and thermal sprays.

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Mechanical & Aerospace Engineering

Previously: Research Staff, Princeton University

NICOLE STEINMETZ

Professor

Ph.D. University of East Anglia

Steinmetz engineers plant-virus-based nanomaterials for human and plant health applications. She uses chemical biology methods to repurpose plant viruses to yield nanoparticles for applications such as drug delivery, molecular imaging, and next-generation vaccines and immunotherapies targeting cancer, cardiovascular disease, and infectious disease.

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NanoEngineering

Previously: Professor, Case Western Reserve University

JOHN R. SANFORD

Professor of Practice

Ph.D. École Polytechnique Fédérale de Lausanne

Sanford is interested in the application of artificial intelligence to the design of antennas, filters, signal processing routines and self-organizing networks. He recently served as CTO of Ubiquiti Networks, where he helped develop the world's highest capacity wireless network. He has also founded two successful startups.

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Electrical & Computer Engineering

Previously: Chief Technology Officer, Ubiquiti Networks

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