UC San Diego
JACOBS SCHOOL OF ENGINEERING

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UC San Diego alumnus and Qualcomm co-founder gives $30M to Jacobs School of Engineering

UC San Diego alumnus and Qualcomm co-founder Franklin Antonio is donating $30 million to the Jacobs School of Engineering. In recognition of this gift, UC San Diego will name a planned building for engineering research and education Franklin Antonio Hall. The building is being designed from the ground up to facilitate cross-disciplinary collaborations that are critical for solving the toughest health, energy, autonomy and security challenges facing society. The approximately 200,000-square-foot building is scheduled to open by fall of 2021.

Learn more: bit.ly/FranklinAntonioGift

Padovanis establish scholarship for electrical and computer engineers

Roberto Padovani, a pioneer in 3G communications and internet-on-mobile applications at Qualcomm, never forgot the role that financial assistance played in his education. Roberto and his wife, Colleen, have established a $1 million endowed scholarship focused on exceptional undergraduates with financial need in the Department of Electrical and Computer Engineering at the Jacobs School of Engineering. "There's a broad range of opportunities to do philanthropic work," said Roberto Padovani, "but we both felt that helping students succeed was at the top of our list. Kids should not be blocked from succeeding because they don't have the financial means, and if we can help with that, it would be great."

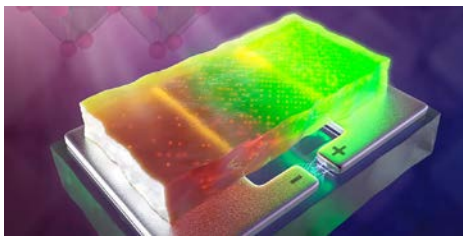
Learn more: bit.ly/Padovanis

Five bioengineering graduate students named Siebel Scholars

Five bioengineering Ph.D. candidates from UC San Diego have been named Siebel Scholars this year. The Jacobs School is one of just a handful of engineering schools whose graduate students are eligible for the generous fellowships from the Siebel Scholars bioengineering program. This year's recipients are working on the 3-D bioprinting of functioning human tissues, injectable biomaterial therapies for treating damaged muscle, mapping tens of thousands of RNA interactions inside cells, and more. UC San Diego ranked first in the nation for biomedical engineering according to the 2010 National Research Council (NRC) rankings, and third in the nation according to the latest U.S. News graduate program rankings.

Learn more: bit.ly/SiebelScholars

Observing perovskite crystals in action at nanoscale



UC San Diego nanoengineers have shown how a solar cell material called hybrid perovskite crystals behaves at the nanoscale during operation. This work is aimed at developing low-cost, high-efficiency solar cells. The researchers revealed that when voltage is applied, ions migrate within the material, creating regions that are no longer as efficient at converting light to electricity. Their work offers a new approach for peering inside hybrid perovskite crystals to see precisely what is going wrong, explained nanoengineering professor David Fenning, the lead researcher. This project is part of broad efforts across the Jacobs School to leverage insights at the nano- and micro- scales to develop renewable energy technologies.

Learn more: bit.ly/NanoCrystals

‘Crazy jigsaw puzzles’ improve our views of coral reefs

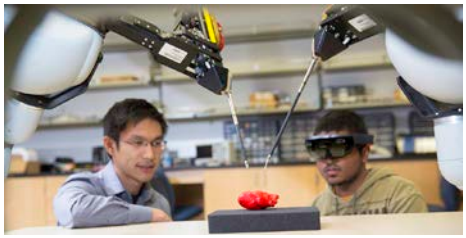
Computer scientists at the Jacobs School of Engineering teamed up with researchers at the UC San Diego Scripps Institution of Oceanography to create 3-D maps of coral reefs. The goal is to make it easier to study and conserve these marine animals. Scientists canvassed more than 17,000 square feet of reef, taking more than 39,000 images that were stitched together to create 3-D photomosaics encompassing the reef. “We’re speeding up the digitization and annotation, and clearing a path to letting machine-learning techniques carry more of this burden,” said Vid Petrovic, a computer science Ph.D. student in Professor Falko Kuester’s lab, who created the software that the team uses to visualize their 3-D models.

Learn more: bit.ly/CoralMaps

New collision detector could help robots better assist humans

Electrical engineers at UC San Diego have developed a new algorithm to help robots avoid moving objects and weave through complex, rapidly changing environments in real time. The algorithm uses machine learning and runs up to 8 times faster than existing collision detection algorithms. “This algorithm could help a robot assistant cooperate in surgery in a safe way,” said electrical engineering professor Michael Yip, the project lead and a member of the Contextual Robotics Institute at UC San Diego. His team presented this work recently at the first annual Conference on Robot Learning.

Learn more: bit.ly/Fastron



Bose acquires smart earplug company launched by engineering undergrads

Hush, a noise-cancelling smart earplug startup, has been acquired by audio giant Bose. The product was conceptualized by undergraduates in mechanical engineering professor Nate Delson’s Product Design and Entrepreneurship class. The goal of the course is to bridge the gap between the technological side of building a product and the business side of finding a market for it. “UC San Diego provided different functions and pitch events like the Moxie Center, which were vital to creating the environment for us to have taken the product concept seriously,” said Daniel Lee, co-founder and CEO of Hush and a 2014 mechanical engineering graduate.

Learn more: bit.ly/BoseAcquisition

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