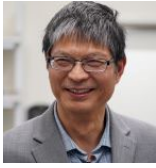


Fall 2022 Newsletter

CHANGE IN ECE LEADERSHIP



Dr. Chunting "Chris" Mi – Steps Down as the Department of Electrical & Computer Engineering Chair

After serving as the Department of Electrical and Computer Engineering (ECE) Chair for seven years, Dr. Mi has decided to step down. The Department of ECE would like to thank Dr. Mi for his tireless service in helping to maintain and build the ECE Department to what it is today. Thank you, Dr. Mi, for your service!



Dr. Satish Sharma – Interim Chair of the Department of Electrical & Computer Engineering

On August 18, 2022, Dr. Sharma stepped up to lead the Department of Electrical and Computer Engineering as the interim Department Chair. Dr. Sharma joined SDSU in 2006 as an Assistant Professor and became a tenured Associate Professor in 2010. In August 2014, Dr. Sharma became a tenured Professor and Director of the Antenna and Microwave Lab at SDSU. In 2017, Dr. Sharma won the prestigious SDSU Outstanding Faculty Monty Award. Please join us in welcoming Dr. Sharma to his new position!

NEWS



Dr. Duy H. N. Nguyen Receives the NSF CAREER Award

Dr. Duy H. N. Nguyen, Associate Professor in the Department of Electrical and Computer Engineering, received the NSF Faculty Early-Career Development (CAREER) Award, which is the NSF's most prestigious award for early-career faculty. The title of the project supported by this award is "Development of Learning Frameworks for Nonlinear Massive MIMO Systems".

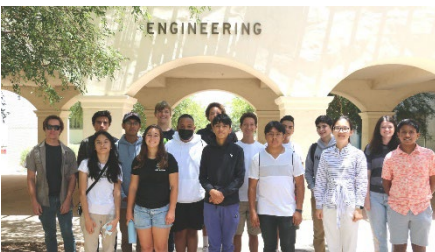
The need for enabling massive connectivity using energy- and cost-efficient massive MIMO wireless transceivers, mobile devices, sensors, and actuators motivates the use of low-cost hardware. However, these hardware components are highly susceptible to generating nonlinear distortions. Dr. Nguyen receives the 2022 NSF CAREER award to develop new learning frameworks and signal processing algorithms to resolve the nonlinearities in wireless transceivers and optimize massive MIMO performance.

SDSU Hosts the San Diego Foundation-Funded Outreach and Workforce Development Workshop

Article by Melinda Sevilla, July 28, 2022

From June to July 2022, San Diego State University's College of Engineering hosted the LevelUp summer engineering workshop for local high school students.

This program was made possible thanks to grant support from The San Diego Foundation. The generous funding allowed for the workshop to bring Engineering to the next generation - with a special focus on exposing girls and underrepresented students to STEM careers. *For the full article click on [Outreach and Workforce Development Workshop](#). View the full photo album [here](#).*



SDSU Hosts Robotics Camp 2022

Article by Melinda Sevilla, July 25, 2022

When the Department of Electrical and Computer Engineering assistant professor **Junfei Xie** earned her [NSF CAREER Grant](#) for her project on Networked Airborne Computing in 2021, she set goals to use some of the [\\$550,000 award](#) to host student educational outreach events. Since then, Xie began by hosting the 2nd CPS-IoT Week Student Design Competition on Networked Computing on the Edge.

Her latest outreach event? A Robotics Summer Camp. To read the full article, click on [Robotics Camp 2022](#). View the full photo album [here](#).

Students Build Replicas of Unmanned Smuggling Boats to Help Coast Guard Find Them

Unique Camera System Improves Probability of Detection

Article by Edward Lundquist, Naval Engineers Journal, June 2022, Vol. 134, No. 2

A unique student project is helping the Coast Guard find small and hard to detect unmanned autonomous surface vessels (UASVs) that can be used to transport drugs into the U.S. Several UASVs have been recovered attempting to transit from around the maritime border with Mexico and into California. The boats are can carry about 90 lbs. of cargo, which could be illegal narcotics, explosives or other contraband. To read the full article, click on [Students Build Replicas of Unmanned Smuggling Boats](#).



The San Diego State University capstone project sponsored by NSIN, USCG, and Ocean Aero was a joint effort between the students of the Department of Electrical and Computer Engineering and Mechanical Engineering, [Team Kraken](#).

Giving to the Electrical and Computer Engineering Department

To learn more about giving to the Electrical and Computer Engineering Department, please contact our Senior Director of Development: Kate Carinder – kcarinder@sdsu.edu, or phone: 619-594-8264