Patrick Mercier, Drew Hall and Gabriel Rebeiz.

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Self-driving mail delivery begins on campus

As part of autonomous transportation research at the Jacobs School, self-driving vehicles are delivering mail at UC San Diego. "We're trying to understand how we can use vehicles to do 'last mile' logistics: that is, when autonomous vehicles get off the freeway and onto crowded streets that they have to share with other vehicles and pedestrians," said Henrik Christensen, director of the Contextual Robotics Institute at UC San Diego and the lead researcher on the project. The algorithms that enable the vehicles to share the road with cars and people were developed by UC San Diego researchers.

Learn more: bit.ly/UCSDautomail

Alumni power San Diego robotics ecosystem

UC San Diego engineering alumni are at the core of the robotics ecosystem here in San Diego County. This was clearly evident at the sixth annual robotics forum organized by the UC San Diego Contextual Robotics Institute, which focused exclusively on local companies this year to showcase the breadth and depth of the region's robotics strengths. UC San Diego plays an important role in the local economy, both by providing engineers and computer scientists for the workforce, and by making discoveries that can be licensed by industry. In order to best prepare students to meet the demands of the local and global robotics industry, the Jacobs School is launching a new robotics master's degree program in summer 2020.

Learn more: bit.ly/SDRoboForumRecap

Spino□ company launches spatial visualization app

Engineering professors at the Jacobs School have developed a touchscreen app to teach students how to sketch 2D projections and 3D views freehand, boosting spatial visualization skills. This is important in many STEM fields, from Computer-Aided-Design in engineering to using ultrasound for medical procedures. The app is produced by eGrove Education Inc., a company co-founded by Nathan Delson, a UC San Diego mechanical engineering teaching professor, and Lelli Van Den Einde, a UC San Diego structural engineering teaching professor. They received a $750,000 SBIR grant from the NSF to develop the app, which is available in the Apple App Store and Google Play Store.

Learn more: bit.ly/SpatialApp

$2.3 million in NSF grants to create personalized healthcare robots

Computer science professor Laurel Riek is the lead researcher on $2.3 million in new grants from the NSF to investigate how intelligent, personalized robots can be used to support neurorehabilitation for adults with mild cognitive impairment and adults recuperating from a stroke. In collaboration with clinical psychologists at UC San Diego, Riek's Healthcare Robotics Lab will develop new methods to deliver and sustain neurorehabilitation and create new approaches to support long-term robot learning in the real world. In a second grant, the team will work with UC Davis to create new intelligent technologies to support people who have had strokes.

Learn more: bit.ly/NeurorehabRobots