Electrical engineering senior, Kaylee Arceo, describes her team project, "Development of Ultracapacitors for Energy Sources" to an ESPEX visitor

A hydrogen-powered engine. A robot that uses facial recognition to follow commands. An unmanned aerial vehicle able to avoid obstacles and hazards while navigating on its own. A student-built satellite that will soon orbit the earth. These are just some of the nearly 40 student designs and projects on display during the first-ever Engineering Student Projects Expo (ESPEX) in April.
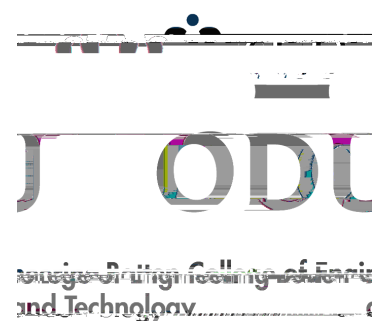
"What stood out for me was the extraordinary use of technology," said

to Team CubeSat, part of a multi-university collaborative project building a constellation of three cubic satellites that will soon be deployed into Low Earth Orbit (LEO) to study phenomena that influence the varying density of the thermosphere.

See more in this brief video:

To say Humberto Areguin Garcia is ambitious might be an understatement. As the award-winning scholar prepares to graduate from Old Dominion University with a Bachelor of Science degree in civil engineering, he is visualizing a possible future outside of engineering.

"Currently, I'm doing research for Eastern Virginia Medical School (EVMS). I was inspired through their apprenticeship program, their Medical Spanish service learning program and all the volunteering I've done at the clinics," says Humberto. "If I could learn the art of medicine, I wouldn't have to work a day in my life, because every day I'd be helping someone else."

Born in Michoacán, Mexico, Humberto came to the United States eighteen years ago. He excelled academically despite often having to change schools as his family moved around the country, living in several different states, because of his father's work in construction.

"I didn't mind moving around. It gave me the opportunity to meet all kinds of individuals," he said.

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by Noell Saunders

U.S. Sens. Mark Warner and Tim Kaine recently announced the approval of $1 million in federal funding from the National Science Foundation to help support high-achieving students with demonstrated financial need in Old Dominion University's cybersecurity program.

The National Science Foundation project is led by Chunsheng Xin, associate professor in the Department of Electrical and Computer Engineering; Wu He, associate professor in the Department of Information Technology and Decision Sciences; Brian Payne, Old Dominion's vice provost for Academic Affairs; Hongyi "Michael" Wu, director of the Center for Cybersecurity Education and Research and; Shana Pribesh, associate professor in the Department of Education Foundations & Leadership.

The funding will provide up to 18 scholarships as well as mentoring and program activities. Each student will be supported for four years.

Old Dominion President John R. Broderick said, "This will help ensure Old Dominion attracts the best and brightest students to a important field with significant growth potential."

Hongyi "Michael" Wu, added: "The success of the project will substantially strengthen ODU's cybersecurity program, attract top students and boost the student retention rate, leading to transformative changes in the state of cybersecurity workforce preparedness."

In a joint statement, Warner and Kaine said: "Ensuring students have the support they need to pursue careers in cybersecurity is critical to building our federal workforce and defending the nation's economic and national security. We are thrilled that ODU and the National Science Foundation are partnering to help make that a reality for more students."
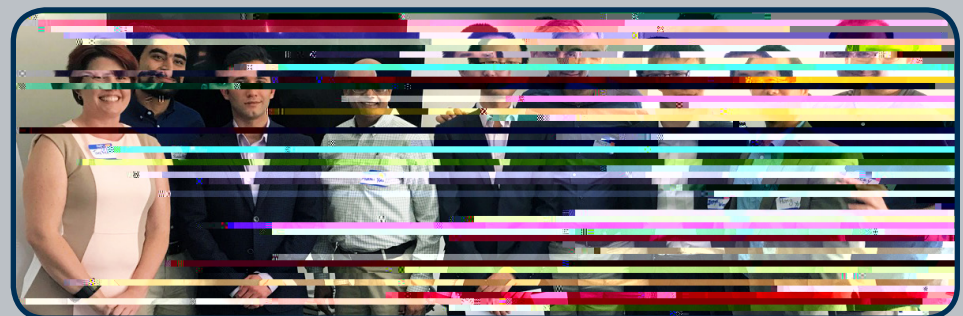
Warner is vice chairman of the Senate Intelligence Committee and co-founder of the Senate Cybersecurity Caucus, where he's called for the protection of consumers' personal information and timely disclosure of data breaches. He also has written legislation seeking to hold credit reporting agencies accountable for breaches.

Kaine, a member of the Senate Armed Services Committee, co-chairs the Senate Career and Technical Education Caucus and has advocated policies to prepare students for careers in cybersecurity and increase scholarships for them.

Developers, planners, futurists, big data enthusiasts and problem solvers gathered to help address Virginia's greatest transportation issues through the use of open data sets, including Virginia Department of Transportation's (VDOT) Smarter Roads data portal.

Judged on everything from uniqueness and originality to approach and impact, Old Dominion University's Transportation Research Institute (TRI) team, made up of civil engineering as well as modeling, simulation and visualization engineering students, won awards in the "Safety" and "Vulnerable Road Users" categories. The team developed and demonstrated innovative applications addressing congestion, safety, and transportation infrastructure challenges faced by VDOT.

The event seeks to engage the tech community, including developers, planners, big data, in two days of problem-