

# NEWS

## School of Electrical Engineering and Computer Science



### NSF awards \$10 million grant to establish Center for Trustworthy Machine Learning

Patrick McDaniel, William L. Weiss Chair in Information and Communications Technology, was awarded an NSF Frontier grant to manage and mitigate machine learning risks.

Fall 2018

## FEATURES

## Engineering leadership discusses plans for achieving gender equity

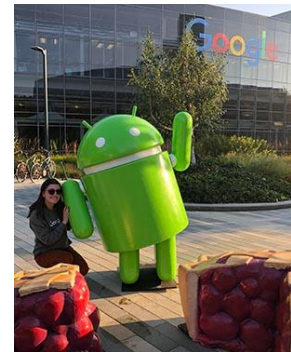


In the fall of 2017, Justin Schwartz, Harold and Inge Marcus Dean of Engineering, Penn State, announced a bold goal: for the Penn State College of Engineering to achieve gender equity among the undergraduate student population within seven years. A year later, he and the College remain fully committed to that goal. Schwartz, alongside Tonya Peeples, associate dean for equity and inclusion for the College of Engineering, and Tom La Porta, director of the School of Electrical Engineering and Computer Science (EECS), addressed a group of about 20 representatives from engineering companies on October 1, at the Nittany Lion Inn, about both the importance of the gender equity initiative and the plan for making it a reality. >>

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## Kelsie McElroy named 2018 Google Women Techmakers Scholar

Kelsie McElroy, a junior majoring in computer science in the Penn State School of Electrical Engineering and Computer Science, has been named a 2018 Google Women Techmakers Scholar for her advocacy for gender equality in the field of computer science and for serving as a leader and role model for others.



"Kelsie is an outstanding student and a role model for anyone considering a career in computer science. Her first-hand experience of competing (and succeeding) in an environment with few women provides her with a great perspective on how to break down barriers," John Hannan, associate department head of the Department of Computer Science and Engineering and associate professor of computer science and engineering, said. >>

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## Werner receives Outstanding Technical Achievement award from DOTC

Doug Werner, John L. and Genevieve H. McCain Chair Professor of Electrical Engineering, Penn State, recently received an Outstanding Technical Achievement award from the Department of Defense Ordnance Technology Consortium (DOTC) for his project titled, "Metamaterial-Enabled Small Form-Factor Antennas for High-Power Microwave (HPM) Applications."



"This award recognizes the value of Werner's technology to the government and success in rapidly moving his prototype closer to a product of service to the nation," said Penn State Department of Mechanical and Nuclear Engineering's Eric Boyer, who is a member of the DOTC Executive Committee. >>

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## School hosts two camps to encourage more girls to explore electrical engineering and computer science

Penn State's Department of Electrical Engineering hosted a five-day camp in July, called Anything is POSSible for Girls in Electrical Engineering (APOGEE - the most successful, popular or powerful point), for girls in grades 7-9 to introduce them to electrical engineering. >>



Penn State's Department of Computer Science and Engineering also hosted a five-day camp, called Girls Coding the Future with Robots, for girls in grades 7-9 to introduce them to coding through the use of robots - both virtual and physical. Camp participants learned the fundamentals of computer programming and also about opportunities and careers available in computer science and engineering. >>

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## Improving security against quantum computers

**Sean Hallgren selected for Vannevar Bush Faculty Fellowship to study quantum computation and cryptography**

People that shop online often take for granted the cryptography that keeps their credit card information secure from third parties. But there's no guarantee that retailers will always have the best cryptography in place to protect their customers once large-scale quantum computers are built. Currently used systems can be broken using such a computer.

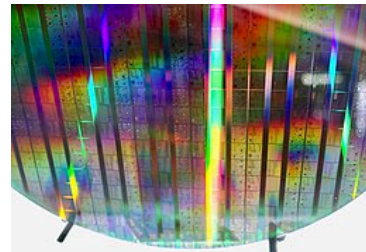


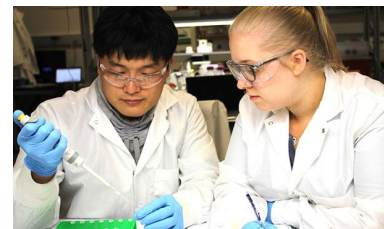
Photo: Steve Jurvetson

Sean Hallgren, professor of computer science and engineering, Penn State, whose research focuses on quantum computation and theoretical computer science, has received an award from the Department of Defense (DoD) to work on quantum algorithms. One aspect of this is determining which encryption cannot be broken by quantum computers. >>

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## Fighting new disease outbreaks before they can spread

Effective proactive virus discovery to help prevent future catastrophic disease outbreaks is the focus of a four year, \$2 million grant from the National Institutes of Health. Receiving the grant is Siyang Zheng, associate professor of biomedical engineering and electrical engineering.



Infectious diseases account for one quarter of global deaths and massive economic loss. Individual outbreaks can be devastating, such as the estimated 20 to 50 million lives lost during the 1918 flu pandemic. They can also cause traumatic economic loss. For example, there were losses of \$40 billion in the first six months of the SARS outbreak during 2002 and 2003. >>

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## RECOGNITIONS & AWARDS

- Electrical Engineering's Pasko elected Fellow of the American Geophysical Union [>>](#)
- Kolli receives Outstanding Dissertation Award from ACM [>>](#)
- Vijay Narayanan appointed to A. Robert Noll Chair in Engineering [>>](#)
- Baum earns Astronaut Scholarship [>>](#)
- Uchino one of three College of Engineering faculty named Distinguished Honors Faculty [>>](#)
- Kiani named Dorothy Quiggle assistant professor of electrical engineering [>>](#)
- Family honors late Penn State professor's legacy through graduate scholarship [>>](#)
- Lobo named 2018 computer science and engineering OEA [>>](#)
- Seliga named 2018 electrical engineering OEA [>>](#)
- Cao and alumnus to receive IEEE INFOCOM Test of Time Paper Award [>>](#)
- Cao named Distinguished Professor [>>](#)

### In the News

Our students, alumni, faculty, and staff



## UPCOMING EVENTS

**December 15**

Fall 2018 Commencement [>>](#)

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