No internet, no power, no problem. Without access to a library or the internet, many teachers in the Pacific Islands are without strong lesson plans or curriculum and community members lack books and multimedia.

Assistant Professor Laura Hosman (front row, right) has figured out a way to deliver a digital library that doesn’t depend on existing internet connectivity — rather it comes with its own Wi-Fi hotspot.

The Solar Powered Educational Learning Library, known as SolarSPELL, is a solar-powered, waterproof, rugged library of educational resources that generates its own Wi-Fi signal.

All that is needed to access the information is an internet-capable device, such as an iPad, laptop or smartphone. SolarSPELL includes science and geography curriculum and can preserve local, traditional and indigenous knowledge.

There are more than a hundred SolarSPELL devices in the Pacific Islands, with 90 devices being managed by active Peace Corps volunteers. In January, Hosman took SolarSPELL to Tonga for the first time. She is working with four engineering students in the Polytechnic School, one of the Ira A. Fulton Schools of Engineering, on curating content specific to Tonga and creating hands-on lesson plans for teaching about solar power.
Focused on student success

20,366 fall 2016 enrollment
3,541 degrees granted 2015-2016
2,843 fall 2016 first-time freshmen
30% of Barrett, the Honors College students are in the Fulton Schools

25 undergraduate programs • 39 graduate programs • Two campuses plus online

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We are leading critical national initiatives

**QESST NSF-DOE Engineering Research Center** with partners MIT, Caltech, Georgia Tech and others

**CBBG NSF Engineering Research Center** with partners Georgia Tech, New Mexico State and UC Davis

Partner on two NSF Engineering Research Centers:

**NEWT with Rice University, Yale and UTEP** and

**FREEDM Systems with NC State University, Florida State University, Florida A&M University and Missouri S&T**

**Six NSF I/UCRCs** (Industry/University Cooperative Research Programs): PSERC, Connection One, Efficient Vehicles and Sustainable Traffic Systems, SenSIP, WET and Center for Embedded Systems

**Two NSF I/UCRC planning grants** Building Reliable Advances and Innovation in Neurotechnology and Center for Assured and Scalable Data Engineering

**$18 million from USAID** to establish the U.S.-Pakistan Centers for Advanced Studies in Energy (USPCAS-E) to improve power production in Pakistan

**HEEAP, Higher Engineering Education Alliance Program** (Intel, Siemens) $20M cash and more than $50M in-kind donations by academic, government and industry partners

**32 young investigator awards** from NSF CAREER, AFOSR YIP, DARPA YFA, NASA and NIH Directors/Development over the past three years

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**New facilities** Fulton Schools Residential Community on the Tempe campus opening fall 2017;
Generator Labs opened fall 2016 in Engineering Center.
Other new facilities include: College Avenue Commons, eSpaces, Brickyard Mezzanine and Interdisciplinary Science and Technology Building 4.

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**Invention disclosures**

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**$98.33M** research awards FY 2016

**$99.43M** research expenditures FY 2016

**1,000+** undergraduates conducting research

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Learn more about our student achievements, faculty awards and more: engineering.asu.edu/factbook.