Shiley-Marcos School of Engineering

Inspiring Innovation

Cyber Security Engineering Studio: **$500,000**

Background

The Shiley-Marcos School of Engineering is seeking $500,000 to build create a **cyber security engineering studio**. It's only when recent cyber security breaches have shown their staggering impact in terms of cost, liability, and consumer confidence (including recent hacks into Sony, Target, Home Depot and others) that the general public becomes aware of the persistent threats continuously probing the nation's online financial, commercial, and social networks. The U.S. government and military have been engaged in cyber conflicts for decades, and the attacks are becoming more difficult to track and repel. Only now — with the cyber attacks reaching into the lives of individual people and creating negative consequences, financially and personally, can the extent of the gaps in existing cyber security technologies be seen in a public way.

In June 2015, the Division of Professional and Continuing Education, in collaboration with the Shiley-Marcos School of Engineering, hired Winnie Callahan, EdD, a well-known and well-respected program developer and administrator with a track record of success at the University of Nebraska and the University of Southern California, to the University of San Diego to develop its cyber security programs.

To build upon the strength and experience Dr. Callahan brings to USD, several programmatic and infrastructure elements need to be developed, along with cyber security courses and programs to propel the cyber security program forward.

Objectives

USD has identified the framework elements for a Center for Cyber Security Engineering and Technology (CCSET). It will be home to numerous initiatives that will support program development, enhance teaching and learning experiences, and connect USD's endeavor to the broader world of cyber security engineering and technology expertise, technologies, corporations, and government agencies.

Impact

The Center for Cyber Security Engineering and Technology will include a teaching laboratory — outfitted with unique, A1 cyber security equipment. Technologies will be necessary to establish a world-class environment for learning about, experimenting with, and developing security technology environments.

Establishing a laboratory space with A1 equipment will make USD unique in the country. The lab will require systems that are entirely separate from and not connected to the USD information technology infrastructure, and isolated and independent of the Internet. The full build-out of the lab will require support for a secure space (including lockers and a monitored, dual-entry system), furniture (modular desktops and workbenches), computers, networks (racks, routers, and switches), and a lab technician to oversee and manage the space and systems.

For More Information

Elisa Lurkis
Director of Development and Alumni Relations
Shiley-Marcos School of Engineering
(619) 260-7913
elurkis@sandiego.edu
leadingchange.sandiego.edu