

New College Program Focuses on Cybersecurity for the Utility Industry

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Thomas Edison State College, located in Trenton, N.J., has created an online program through which students can obtain a graduate certificate in cybersecurity with a focus on utility environments. The instruction is designed to help close a growing cybersecurity skills gap and meet workplace shortages, specifically for utilities.

The 15-credit graduate certificate in Cybersecurity—Critical Infrastructure was developed in collaboration with the Utilities Telecom Council (UTC), a global trade association representing utilities and critical infrastructure companies in the electric, gas, and water industries. The program is designed to help utility employees advance as cybersecurity professionals and to prepare information technology (IT) professionals to transition into the utility industry as cybersecurity professionals.

“To provide electricity, water, gas and other essential services, utilities run a variety of specialized systems and networks. A compromise of these networks may cause kinetic, real-world impacts,” said Nadya Bartol, cybersecurity strategist and vice president of Industry Affairs at UTC.

Cybersecurity Skills Gap Exists

Recent surveys underscore the skills gap and workplace shortages in cybersecurity in the U.S. and around the world. For example, the 2015 Global Information Security Workforce Study, an international survey of nearly 14,000 information security professionals published by (ISC)2 Inc., estimates that the shortfall in the global information security workforce will reach 1.5 million by 2020.

In addition, 86% of respondents to ISACA's 2015 Global Cybersecurity Status Report, which surveyed more than 3,400 ISACA members, identified a cybersecurity skills gap, and 92% of respondents planning to hire more cybersecurity professionals said they expect to have difficulty finding skilled candidates.

“We are facing a serious shortage of cybersecurity practitioners that understand how to secure these networks,” Bartol said.

Designed for Working Adults

The college's new cybersecurity certificate was created with UTC and top cybersecurity professionals working for utilities today. The program's online courses enable working professionals to complete the certificate in less than a year, without sacrificing their careers or personal responsibilities. The 15 credits earned with the certificate can be applied to the college's Master of Science in Applied Science and Technology degree program, which is also offered completely online.

"This new program is built around the needs of working adults and will help us equip existing utility personnel as well as individuals with IT experience in other industries with the knowledge and skills needed to become cybersecurity professionals to begin mitigating this shortage," said Bartol.

To help UTC member utilities maximize their tuition assistance programs and benefit from a specialized service model, the college has established a corporate partnership with the organization.

"What makes this program unique is that it blends both information technology and operational technology and focuses specifically on critical infrastructure companies, including those focused on energy, water, gas and transportation," said Dr. John O. Aje, dean of the School of Applied Science and Technology at Thomas Edison State College. "Our goal is to help the utility industry meet workplace shortages of cybersecurity experts and provide a convenient option for IT professionals interested in shifting into the cybersecurity space in utilities."

To learn more about the program, visit bit.ly/CyberTESC. ■

Joseph Guzzardo, associate vice president for marketing and communications at Thomas Edison State College.

Tagged in: cybersecurity training for power industry; utility cybersecurity training; Thomas Edison State College ; OT/IT; utility cybersecurity experts.