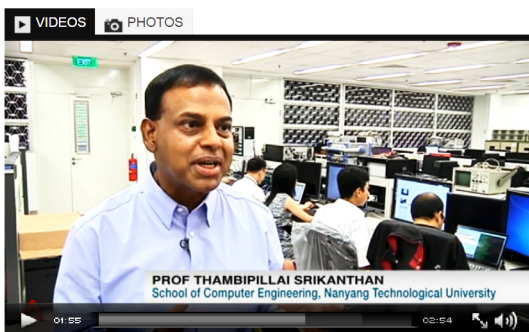


Firms, schools step up to boost manpower in cyber security industry

As cyber attacks become more prevalent and complex, some are taking steps such as sending their employees for specialised training, as well as reviewing the study curriculum.

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315 Email More A A

SINGAPORE: Companies are finding it hard to fill vacancies for cyber security professionals, even as cyber attacks become more prevalent and complex.

To groom workers with the right skills, some are sponsoring new staff for specialised training, while schools are taking steps like reviewing their curriculum.

It took just seven hours to hack into and access the door control function of a dam overseas. Fortunately, this was not a cyber attack, but an exercise conducted by Good Hackers Alliance, a partnership between two security groups.

One of them, Singapore-based Athena Dynamics, said the incident shows the importance of shoring up cyber security. Demand for its services has gone up by 30 per cent in the past year, but it finds it hard to get people with the right skills and can take three months or more to hire staff.

"THREATS BECOMING VERY COMPLICATED"

"Threats today are becoming very complicated and they're not easy to detect," said Athena Dynamics' CEO Ken Soh. "The existing traditional way of resolving all these problems is no longer effective.

"(This applies to) energy, water or even nuclear plants, because they have systems that are very, very proprietary, and in order to actually understand it and the operations of the whole structure calls for very deep-dive kind of skills."

To get around this, the company hires IT graduates and sponsors them for cyber security courses. It also formed the alliance to better identify vulnerabilities and train staff.

Schools are also stepping up to meet the industry's manpower needs. For example, Nanyang Technological University (NTU) recently announced a S\$2.5 million collaboration with an industry partner, BAE Systems, a provider of defence, aerospace and security solutions, to develop advanced cyber security solutions and nurture more specialists in the field.

"Cyber security cannot be an abstract study," said Professor Thambipillai Srikanthan of NTU's School of Computer Engineering. "It's got to be something that is based on real-life threats and challenges, so with this sort of collaboration with these partners, we will have access to real-life data, plus problems that they can investigate. It becomes a very timely and appropriate engagement, particularly for a fast-evolving field like cyber security."

The professor also said that the university will continue to engage the industry and government agencies to work on potential problems. Similarly, Nanyang Polytechnic is exposing students to more complex topics.

Third-year Information Security student Glenice Tan said her project mainly deals with web services that terrorists might use: "Because the Internet is so big, there is some of the private 'Darknet' that is not explored by normal users. This data inside the Internet is actually quite useful for professionals to come into contact with to see if (they may be involved) in future attacks."

The school also reviewed the curriculum for its diploma programmes, with changes being rolled out in 2016. It also hopes this will help more students pursue a career in cyber security after they graduate.

Said course manager John Lim: "We have created a cyber security focus track, which students are able to select to specialise in that area."