

Boosting Singapore's defence

Certified Professional Engineers Kenrick Hor and Teresa Yeo help implement engineering solutions for the military

AUDREY NG

SECURITY is crucial at Singapore Armed Forces (SAF) camps and Er Teresa Yeo Kai Leng is one of the engineers responsible for automating and streamlining security operations in these facilities.

As an assistant director (planning and control), Building and Infrastructure Programme Centre at the Defence Science and Technology Agency (DSTA), she manages the operational, governance and corporate matters of the Programme Centre.

"By leveraging technologies such as analytics and decision support tools, our team succeeded in reducing the manpower needed to monitor the security system and

this enhanced overall operational and resource efficiency," she says.

Creative thinking

Her colleague Er Kenrick Hor Zhi Liang, a senior engineer who works in the same department, has also been involved in projects for SAF such as designing a military facility to house SAF training simulators.

Working with limited space, he and his team had to think creatively to turn limitations into design opportunities.

He also worked on the design of a new DSTA Integrated Complex where his team introduced energy efficient features such as daylight sensors, LED lighting, motion sensors and light timer control to reduce energy consumption.

The opportunity to work on different projects in DSTA also helped hone our technical competencies and gain experience in project management. Obtaining the PE is a form of recognition at a national level and an external validation of my work in DSTA.



ER TERESA YEO KAI LENG
assistant director (planning and control)
Building and Infrastructure Programme Centre
DSTA



Certified Professional Engineers Er Yeo and Er Hor say that DSTA encourages the exchange of knowledge and expertise. PHOTO: DEFENCE SCIENCE AND TECHNOLOGY AGENCY



Er Yeo (centre) with her team that planned the power supply for last year's National Day Parade. PHOTO: DEFENCE SCIENCE AND TECHNOLOGY AGENCY

The team's effort produced energy savings of 35 per cent and potable water savings of 70 per cent.

Er Hor's role involves overseeing the design of systems to ensure safe and efficient operation of military facilities and conducting engineering studies on electrical systems in military facilities.

In all his projects, he takes into account the human element while devising technical solutions to meet the needs of users.

"To me, engineering excellence is leveraging one's technical proficiency to provide a safe, reliable and sustainable system that supports the needs of the users at the same time," says the 33-year-old, who has been with the agency for six years.

For Er Yeo, 32, who has worked at DSTA for 10 years, teamwork also plays a part when executing projects to tap on the multidisciplinary expertise and deliver the best solutions to users.

She says: "Engineering excellence is not just about delivering a single system to users. It is about exploiting technology to enhance the user experience, instead of simply introducing new technologies that might be overly complex."

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ER KENRICK HOR ZHI LIANG
senior engineer (planning and control)
Building and Infrastructure Programme Centre
DSTA

A sense of achievement

Both of them are certified with the Professional Engineers Board and obtaining the Professional Engineer (PE) certification was a natural progression.

Even while studying Electrical Engineering at Singapore Polytechnic, Er Hor had set his sights on being a PE. His father, also a PE,

inspired him to pursue the certification and he obtained it in September this year.

"The PE is a form of personal achievement that drives me to become a more competent engineer. Achieving it serves to benchmark my knowledge and experience on a national level against engineers from other statutory boards, institutions and private entities," he says.

Supportive colleagues also shared their experiences and knowledge.

Er Yeo, who obtained her certification in August, also appreciates the support of colleagues who shared their expertise and advised her on how to prepare for the assessment and interview.

She says: "This openness in knowledge exchange accelerated the build-up of my technical knowledge."

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