

# Power for every situation

DSTA engineer Yeo Yee Ngee is constantly on the hunt for improved engineering solutions

by ahmad osman

DEFENCE Science and Technology Agency (DSTA) engineer Yeo Yee Ngee is a specialist in design and delivery of electrical power systems for military facilities.

The systems must ensure that power supply for operational facilities is robust and functional in every situation. Er Yeo's job includes using explosives to test the blast tolerance of the testing model of the generator systems.

"The tests were really exciting. We got to see how our systems held up under stress," says Er Yeo, 34, a programme manager at the DSTA Building and Infrastructure Programme Centre.

His role as co-chairman of the power support committee of this year's National Day Parade gave him the opportunity to apply his skills in new ways.

For example, he used his DSTA electrical systems experience to deliver safe and robust power supply to the parade's light emitting diode displays, 3D digital projectors and high fidelity sound systems.

His contribution, he notes, creates memorable experiences of the celebration parade for Singaporeans.

## Modelling after dad

Er Yeo became an engineer to follow in the footsteps of his father, a generator specialist who could solve complex engineering issues.

"I want to solve problems like my father did and see tangible results," he says.

Today, he applies engineering skills at DSTA to bolster Singapore's defence and security. He is exposed to a wide range of power and electrical systems, enabling him to grow in his job and profession. His technical expertise, leadership and management

skills are also honed through the agency's in-house courses and seminars.

He is also sent on overseas courses and seminars to stay in tune with industry developments and learn from global experts.

Er Yeo, who recently completed a part-time Master of Engineering Science in power engineering at Nanyang Technological University, is thankful for the support DSTA has provided in his work, professional and personal pursuits.

## Thinking forward

He also broadened his perspectives of engineering applications through his quest to be a professional engineer registered with the Professional Engineers Board (PEB).

With guidance and mentorship from a senior colleague, Er Yeo qualified for registration in 2011 after a rigorous assessment process comprising written tests and an interview with a panel of experts.

Er Yeo says he and his colleagues must "think forward" when it comes to designing engineering solutions that will stay relevant in the future.

This is because DSTA project life cycles may span several years. Changes must be incorporated to existing solutions to meet new requirements.

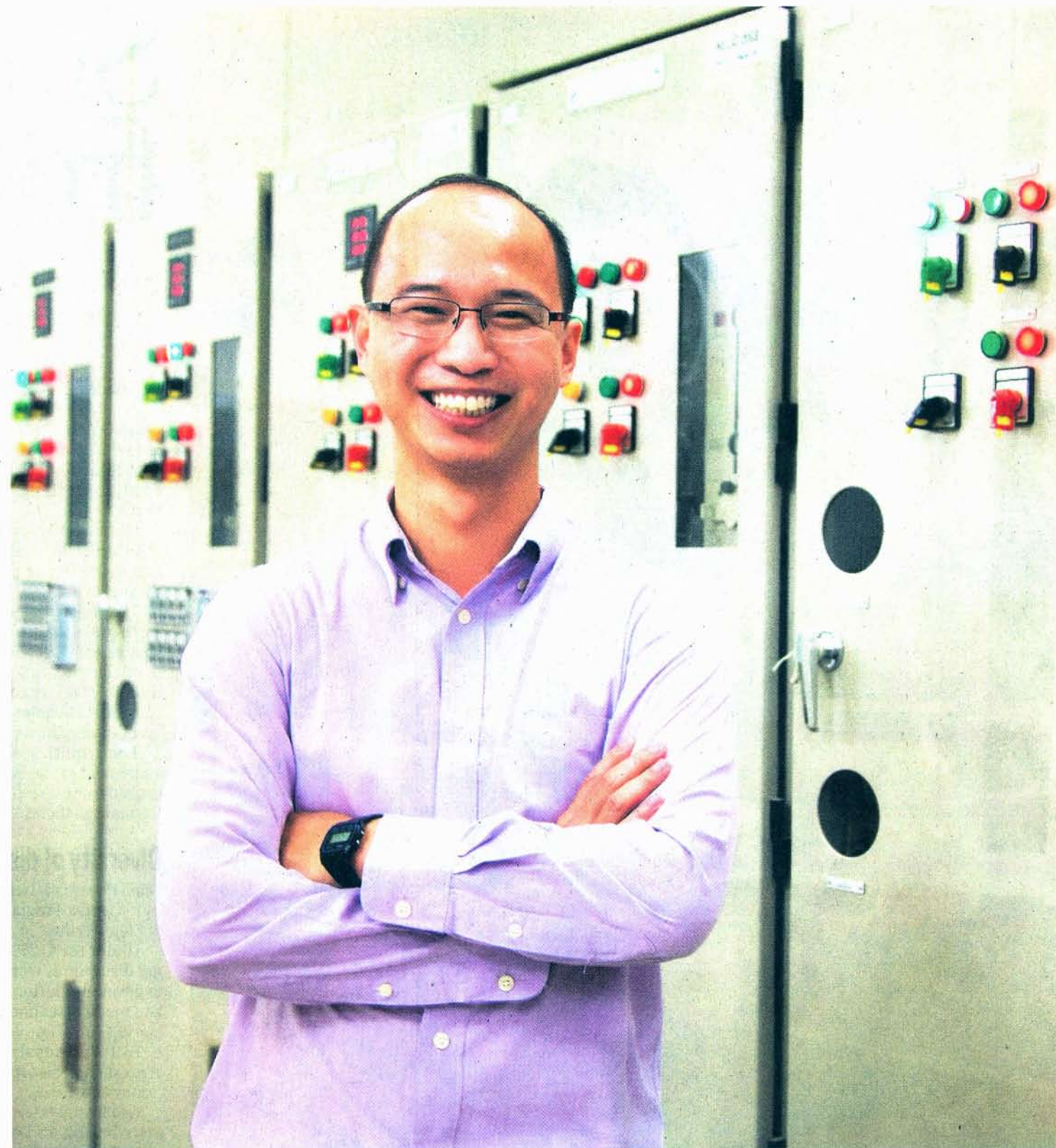
Engineers must also be innovative to engineer new cost-efficient solutions, he says.

"This makes engineering a stimulating and fulfilling discipline," he adds.

"We seldom do the same thing twice and are constantly on the hunt for improved engineering solutions."

## Staying dedicated

Er Yeo is dedicated to the engineering profession because of his deep interest in



Er Yeo is dedicated to the engineering profession because of his deep interest in power systems. PHOTO: DSTA

power systems and the knowledge and experience acquired in a fulfilling career with DSTA.

"Engineering is all about innovation," he says. "You can always try to think of ways to improve the current system or to improve the user experience.

"Engineering allows you to think out of the box and that is what makes it fascinating."

To those who hope to become PEB-registered professional engineers, he advises: "Do not think only big projects are worth your while. There is much to learn in small

tasks as well.

"Start small, learn and grasp the concept of such projects. Fundamentals are very important.

"Ask yourself what you want to achieve and how you want to work towards your goals. Plan ahead for success."