

# THE STRAITS TIMES RECRUIT Careers in Engineering

## Creative solutions

Senior engineer Teo Jia Yao thrives in the ideal work environment at DSTA

by hazel tan

MR TEO Jia Yao is on an important mission. The senior engineer with the Naval Systems Programme Centre at the Defence Science and Technology Agency (DSTA) helps to outfit Singapore's warships with state-of-the-art combat systems.

"One key aspect of my role is to integrate the enhanced ship control, monitoring and management system on the Missile Corvette," says the 32-year-old, who is part of a team that acquires and integrates advanced naval systems for the Republic of Singapore Navy (RSN).

The enhanced ship control, monitoring and management system regulates and oversees the "health" of the ship systems.

"Together with my teammates, we fitted a state-of-the-art combat suite on the Missile Corvette, which allows the warship to sense farther and enables faster decision-making in the operational environment," says Mr Teo.

An innovative idea the team came up with was to integrate a modern and customised combat management system console onto the commanding officer's chair to allow battle space information access at a touch.

"This improves operational efficiency and enables the commanding officer and his combat team to act more decisively and quickly to achieve mission effectiveness," he says.

### Smooth sailing

In 2007, Mr Teo earned his Bachelor of Engineering (Electrical Engineering) degree with honours from the National University of Singapore and joined DSTA. His foray into the field was triggered by a deep interest in mathematics and science, as well as his love of sailing.

"My interest in naval engineering came about when I took up sailing at the Singapore Armed Forces (SAF) Yacht Club during secondary school," he says.

"As I learnt how to manoeuvre a sailboat, I was intrigued by the concepts and principles behind the construction and operation of a vessel. As I have always had a deep interest in disciplines such as mathematics and science, which gave me a clear



Mr Teo advises aspiring engineers to "make a difference today for a better tomorrow". PHOTO: DSTA

perspective of how things around me work, I naturally pursued an education in engineering," he adds.

Contrary to the misperception that an engineering career is dull, Mr Teo says engineers are creative problem solvers who strive to come up with solutions to improve people's lives.

"There are usually several solutions to a problem. Innovation and creativity are important to push boundaries and come up with novel and optimal solutions. That, to me, is what makes engineering so exciting," he says.

And for someone like Mr Teo who is always up for a challenge, DSTA offers the ideal work environment, where projects are often large scale and complex, involving many integrated and networked systems, stakeholders and engineering professionals.

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"As a defence engineer, I get to interact with advanced systems and leading-edge technologies that others would normally not have access to," he says.

He has also travelled overseas to attend conferences such as the American Society of Naval Engineers Intelligent Ships Symposium. Such exposure helps build his technical competency, which in turn allows him to develop more innovative and cost-effective solutions for Singapore's naval defence.

### Positive impact

Mr Teo says the positive effects of engineering on Singapore can be seen in the areas of defence and beyond.

Apart from enhancing Singapore's defence capabilities, defence engineers have also developed solutions that helped in the fight against Sars, and used underground space for oil storage.

For those who are inspired and want to follow in his footsteps, Mr Teo's advice is to dream big, with a passion "to make a difference today for a better tomorrow".

"The thirst for new knowledge and a keen interest in technology are important qualities for those interested in a career in engineering," he says.