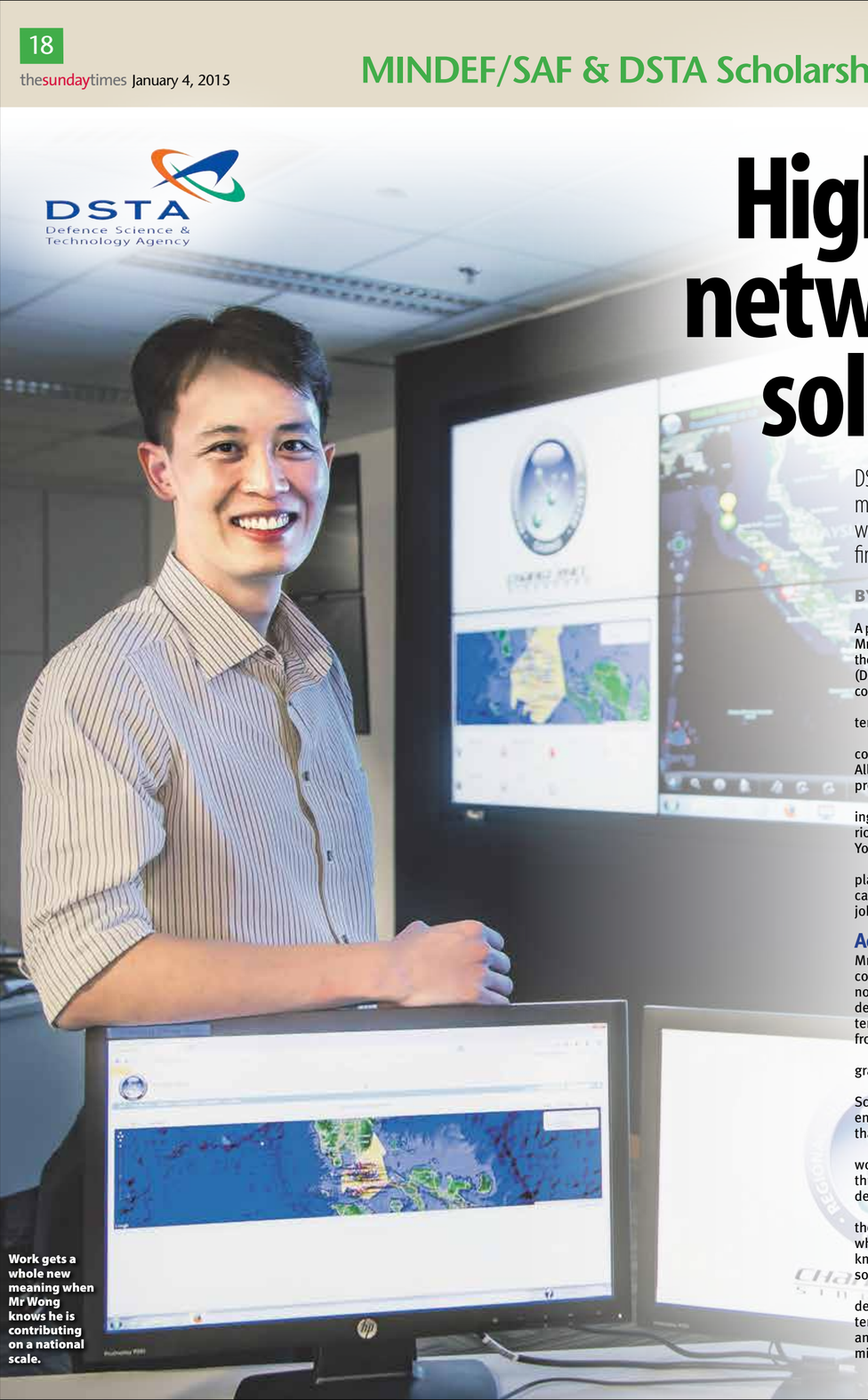

Work gets a whole new meaning when Mr Wong knows he is contributing on a national scale.

High-tech networked solutions

DSTA scholar Wong Chia Sern measures his contribution at work on a national scale and finds fulfilment in his career

BY PANCHALEE THAKUR

A passion for technology and engineering led Mr Wong Chia Sern to pursue a career with the Defence Science and Technology Agency (DSTA), where he helps to develop a more connected Singapore Armed Forces (SAF).

Mr Wong, 33, has always had a keen interest in computers.

As a teen, he built and upgraded his computer and helped his friends fix theirs. All these eventually piqued his interest in programming.

But what sparked his love for engineering was his first "solo" on the Piper Warrior aircraft while he was in the Singapore Youth Flying Club.

"Having dealt with the systems on the plane and experienced how technology can enable people to fly, I knew I wanted a job in engineering," he recalls.

Academic excellence

Mr Wong holds a bachelor's degree in computer engineering from Nanyang Technological University and a dual-master's degree in defence technology and systems, specialising in network engineering, from Temasek Defence Systems Institute.

He is a recipient of both the DSTA Undergraduate and Postgraduate Scholarships.

"I applied for the DSTA Undergraduate Scholarship as I was attracted by the many engineering and defence science areas that I could get involved in.

"I also wanted greater meaning in my work, and DSTA allowed me to achieve that through my contributions to Singapore's defence and security," says Mr Wong.

As a DSTA scholar, Mr Wong also had the opportunity to intern at DSTA, during which time he was part of the integrated knowledge-based command and control software development team.

There, he had the opportunity to help develop an artificial intelligence system that provides information updates and recommends courses of actions to military commanders.

Above: Mr Wong was involved in the upgrading of the network infrastructure to support Changi RHCC's operations. Below: Mr Wong (third from left) during his postgraduate studies in the US.

"These projects made me realise that the engineering work I do in DSTA can improve the situational awareness of commanders on the ground and potentially save lives if used in operations," he says.

Technical work aside, Mr Wong is grateful that DSTA takes proactive steps to assimilate scholars into the Defence Technology Community.

He attended an orientation programme for scholars that included visits to partner organisations such as DSO National Laboratories and Centre for Strategic Infocomm Technologies, to get a better sense of how the defence community works.

He also got to know his fellow DSTA scholars and future colleagues better at an Outward Bound School camp during orientation, a memory etched in his mind.

"The orientation programme let us bond in situations outside of work, allowing us to make friendships that have lasted more than a decade," he adds.

Mr Wong went on to attain the DSTA Postgraduate Scholarship, during which he attended classes at the National University of Singapore and the US Naval Postgraduate School.

Securing networks

Mr Wong's journey at DSTA began in July 2006, when he joined the organisation as an engineer and helped to upgrade the SAF's transmission network, which is a wide area network.

He now leads a team in DSTA's InfoComm Infrastructure Programme Centre with a focus on the Republic of Singapore Navy (RSN) operations networks.

His primary responsibility is to help build secure networks for the RSN. This involves ensuring that the RSN's operations networks are secure and robust to support trainings and missions.

"The networks stretch between platforms, sensors, weapons, and command and control systems. It's my job to make sure that these features are able to 'talk' to each other securely and reliably," he explains.

He liaises with RSN personnel regularly to find out about requirements, discuss solutions and provide advice on existing solutions. Work often takes him from the desk to naval bases.

> We get to work on the latest defence technology and interact with people from all over the world.
>
> – Mr Wong Chia Sern, team leader, DSTA, InfoComm Infrastructure Programme Centre

DSTA in-house training programmes have helped him to constantly improve his technical, leadership and project management skills that are needed to match the new challenges that he meets at work.

Beyond defence projects

The wide variety of projects that Mr Wong gets to work on ensures that there is never a dull day at work.

"We get to work on the latest defence technology and interact with people from all over the world, whether it's for sourcing equipment or designing solutions for the SAF," he says.

A project that he is particularly proud of is the setting up of the Changi Regional Humanitarian Assistance and Disaster Relief (HADR) Coordination Centre that was launched on Sept 12.

The Changi Regional HADR Coordination Centre (RHCC) can co-relate information from regional disaster and early warning centres, and distribute situation pictures to partner militaries.

It will then coordinate and facilitate the deployment of foreign military assistance into disaster-hit areas.

Says Mr Wong: "My role was to help upgrade the network infrastructure to support RHCC's operations.

"The benefits from this centre are not limited to Singapore's shores; it will help save lives if a disaster strikes in the region.

"When I know I'm contributing on a national scale, work gets a whole new meaning."