Yeo Wee Hong
DSTA Undergraduate Scholar

Designation: Member of Technical Staff, Networks Division, DSO National Laboratories

Studied: Masters of Science in Electronics & Computer Engineering, University of Illinois at Urbana-Champaign, US

Bachelor of Electrical Engineering, First-Class Honors from University of Illinois at Urbana-Champaign, US

DEFENCE SCIENCE AND TECHNOLOGY AGENCY

DEVELOPING TOMORROW'S TECHNOLOGY, TODAY

The esteemed Defence Science and Technology Agency (DSTA) scholarship provides a platform for passionate individuals to develop cutting-edge technology for our nation. 26-year-old Shawn Ang Shi Sheng and 28-year-old Yeo Wee Hong are two such scholars who tell us more about their scholarship journey and the exciting projects they are currently involved in.

By Edmund Wang

For as long as he can remember, Yeo Wee Hong has always been interested in devising practical solutions – solutions that not only work well in ideal conditions, but can also be utilised reliably in real-world situations under a myriad of challenging environments.

As fate would have it, the Electrical Engineering graduate with First-Class Honours from the University of Illinois found his interest perfectly aligned with that of the research and development conducted in the field of defence science and technology, and he is now a Member of Technical Staff in the Networks Division at the DSO National Laboratories.

"In DSO National Laboratories, the focus is not about churning out new technologies in the shortest time possible with the aim of maximising profits. When it comes to Singapore's defence, our focus is about delivering technologies of genuine quality that people can entrust their lives with," says Wee Hong with conviction.

TURNING IDEAS INTO REALITY

In this respect, Wee Hong feels fortunate to be involved in the entire design process – from the conceptualisation of defence products to their prototyping and eventually the finalisation of the product.

In his role as Member of Technical Staff at the DSO National Laboratories, Wee Hong strives to

Shawn Ang
DSTA Undergraduate Scholar

Designation:	Engineer (Naval Systems), Defence Science and Technology Agency (DSTA)
Studied:	Masters of Science in Mechanical Engineering, Northwestern University, US Bachelor of Mechanical Engineering, with Magna Cum Laude, Northwestern University, US

develop or improve technology for the benefit of our defence force. He is currently developing a wireless communication system that will allow SAF soldiers to view and stream video data on a portable, compact and power-efficient radio set.

"Essentially, it is a 'smartphone' for soldiers in the field and it will be able to withstand rigourous handling in harsh environments – for example, it has to be able to function properly even when there is a lot of (signal) interference," explains Wee Hong.

Like Wee Hong, fellow DSTA scholar Shawn Ang was extremely keen on pursuing a career that offered plenty of opportunities for interaction, discussion and teamwork. The Masters of Science of Mechanical Engineering holder from Northwestern University also reveals that the emphasis on project management factor drew him to DSTA, where he is currently an Engineer in the Naval Systems Programme Centre.

And although Shawn shares Wee Hong's aim of bettering the SAF's capabilities, his job scope is entirely different. At the Naval Systems Programme Centre, he has been involved in upgrading the RSN's Missile Corvettes (MCV), which is part of the Life Extension Programme to upgrade the combat systems on these ships and give the RSN improved capabilities on an existing platform.

He explains, "When the MCVs enter the shipyard, the ships are refurbished, and given a makeover. We manage this upgrade process with the ship crew, where old systems are removed and new ones are installed. As Engineers, it is important to uphold a high standard of quality in our review of design and acceptance of the works.

"And when the ship has finished its overhaul after the many rigorous tests, we will embark on a final sea trial. During the sea trial, DSTA platform engineers get to sail with the RSN on board the MCVs. Part of the sea trial includes a speed trial – the MCVs are really fast at their maximum engine revolution and we can reach speeds of over 30 nautical miles per hour!"

THE DSTA UNDERGRADUATE SCHOLARSHIP: A CUT ABOVE

With the important work that has been entrusted to both Shawn and Wee Hong, the duo are extremely grateful for the support that they have received from the DSTA scholarship office, which assisted them with their departure preparations, their university studies and more, up to the day they started work.

As part of their scholarship journey, they also had the chance to be part of several internships aimed at helping them integrate into their respective organisations upon graduation.

One of the highlights of Wee Hong's scholarship journey was having one of his undergraduate research works published and being invited to present his work in a conference in Rio de Janeiro, Brazil.

Through the DSTA Undergraduate Scholarship, Wee Hong was also granted the chance to study and live in the US for five years, experiencing a broad sampling of American culture.

Like Wee Hong, Shawn too had a genuinely insightful learning experience in his time overseas. He made the most out of his time in the US by taking up programmes during his holidays.

"During my first year in university, I chose to do a summer programme on economics in Harvard University. During a spring break in March 2009, I participated in a community service trip after an ice storm hit most parts of the Midwest and Central Plains in the US. I am extremely grateful that DSTA granted me the chance to be exposed to a wide breadth of topics and fields of expertise.

"What's more, to this day I remain in close contact with my scholarship officer, who has become my friend and colleague. The scholarship officers really do their best to make sure that the scholars are engaged and well taken care of," says Shawn.

MAKING THE CUT

Shawn strongly believes that while academic results are important, they are not the sole indicator of a potential DSTA scholarship holder.

"You must be well-read and proficient in communication skills, and above all, be hungry to learn. You will always be learning, either in school or on the job. During the scholarship interviews, do not hesitate to ask questions – it is important that the organisation chooses the right people, but you also need to know if the scholarship is the right one," says Shawn.

On his part, Wee Hong feels that honesty is indeed the best policy. He believes it will not only help you when applying for the DSTA scholarship, it will also take you far in your future career with the organisation.

"It really helps to be yourself during the DSTA scholarship selection process, as the interviewers will want to assess if you are a good long-term fit for the organisation. Find out more about the career that comes along with the scholarship and see if you are really interested in it!" Wee Hong concludes.■