

SP Alliance & Network

SP Alumni eNews

December 2022



**ALUMNI SPOTLIGHT:
PARTNERING THE INDUSTRY
USING COMPUTATIONAL
MODELLING**



Director, NING Research Pte Ltd

Dr Keagan Chee

Diploma in Civil and Structural Engineering, 1997

RISING TO SUCCESS, RETURNING TO SP



In 1997, Dr Keagan Chee graduated from Singapore Polytechnic with a Diploma in Civil and Structural Engineering. He went on to attain a BEng in Civil Engineering from UCL, a PhD in Mechanical Engineering from NTU, and subsequently landed a position at the Agency for Science, Technology and Research (A*STAR).

But Dr Chee didn't stop there. He took the plunge and founded NING Research, an engineering consulting firm, and even returned full circle to SP as a lecturer.

Life at A*STAR

"Despite being fairly new, I was asked to lead a team of over 20 research scientists and engineers which was a big role for me at the time. One of my job scopes was to evaluate projects before deciding to take them on or turn them away. I started thinking about the rejected projects, and how there was a demand for engineering research specifically for these niche projects."

This prompted Dr Chee to venture out on his own to fill the demand with his expertise, leading to the incorporation of NING Research.

Venturing Out On His Own

At NING Research, engineers use computer simulations to design products before clients build actual prototypes. These essential simulations help pinpoint areas for improvement, identify chances for failure and minimise resource waste.

"We started out small, simulating a computer rack and running simple analysis but eventually we gained more clients and took on bigger projects. These projects could involve products as large as Floating Production Storage and Offloading (FPSO) units and as small as heart stents."

On top of designing these, NING Research helped to design and analyse several Singaporean landmarks, such as the Woodlands Checkpoint extension, the largest underground substation in Southeast Asia, and the world's largest Singapore Oceanarium.

Homecoming to SP

Between 2011 to 2015, Dr Chee decided to apply to teach at the very same school that set him on his path to success. The SP principal at the time encouraged Dr Chee to teach and manage NING Research concurrently, so as to impart his industry experience directly to the students.

"When I started teaching, it felt like I was doing something tangible and significant because my students would go on to become our future engineers."

On my first day of class, I bumped into my former lecturer Mr Tan Poh Seng, who encouraged me to approach each lecture with passion like a performance. I realised it's not enough just to teach, you must also be engaging. Interaction with my students through teaching, learning

and laughter encouraged me to be passionate as a lecturer."

SP has since recognised his efforts as a lecturer and awarded him the Excellence in Teaching Award in 2014.

The Best Lesson from SP

Dr Chee shares that his greatest takeaway from SP as a student has to be the system that moulded his way of thinking. "We were given a lot of freedom and flexibility to decide how and when to do the job, as long as we got the job done. There wasn't anyone to chase me for work as I had to be responsible for myself."

He explains that this way of thinking is the exact skill set needed in this day and age of remote working.

Dr Chee also advises engineer hopefuls to learn everything with passion. "Don't worry about whether what you learn will be useful or not because you will never know. So keep your mind open to everything you learn and just take it in. Once you learn it well, it's going to be useful and eventually, you will enjoy what you do."

SP Alumnus Muhammad Naeem Muhammad Nazri hopes to create sustainable water technologies during PhD stint at NTU

SP alumnus Mr Muhammad Naeem Muhammad Nazri will be pursuing a PhD at Nanyang Technological University (NTU) in the Interdisciplinary Graduate Programme under the Nanyang Environment and Water Research Institute (NEWRI). He hopes to venture into research as well as assist in producing new sustainable technologies.



Source: [Berita Harian, 17 Oct 2022]



Over 7000 locals upskill at academy managed by SP and NUS

Minister for Communications and Information Josephine Teo launched the Jobs Transformation Map (JTM) for the Information and Communications (I&C) workforce at the 5G Learning Festival on 13 October 2022. The JTM has identified emerging tech trends that could impact future jobs, such as 5G and Internet of Things; Cloud Computing; Artificial Intelligence (AI) and Analytics. This will influence the high demand for skilled workers in these areas. It also serves as a reference guide for employers when redesigning jobs and reskilling employees. Early efforts to upskill the local workforce have shown promising efforts through the Singapore 5G & Telecoms Academy, where over 7,000 locals have taken related courses in the past two years. The academy is managed by both Singapore Polytechnic (SP) and the National University of Singapore (NUS) as consortium partners.

Source: [Asiaone, 13 Oct 2022]

SP signs 5 MOUs at ITAP to lead Industry 4.0 (i4.0) solutions for SMEs to develop smart and sustainable businesses



Source: [The Straits Times, 18 Oct 2022]

SP signed five Memorandums of Understanding (MOUs) at the Industrial Transformation Asia-Pacific (ITAP) 2022 to help Small and Medium Enterprises (SMEs) gain the knowledge and skills to digitalise their businesses and improve operations efficiency. Mr Tan Ting Wei, an employee who works at the fire fighting equipment company Fire Armour, attended a data visualisation course under SP's Company and Workforce Transformation programme, which is part of SP's ongoing efforts to support SMEs to flourish in the digital age. Companies get guidance on how to restructure themselves in areas such as process redesign, data intelligence, digital transformation and human capital management.



Source: [Berita Harian, 24 Oct 2022]

SP Alumna and cancer survivor Ms Rohani As'ad attains Bachelor's at 50

Despite her bowel cancer diagnosis, SP alumna and homemaker Ms Rohani As'ad persevered through school and her treatments to receive her cancer-free diagnosis two years later. Now 50, she has recently attained her Bachelor of Science in Business at the Singapore University of Social Sciences (SUSS).



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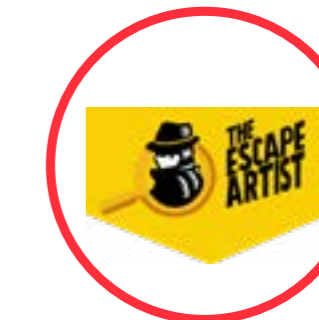
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