Polytechnic graduates show the way in hard work and entrepreneurial spirit

Ministers at graduation ceremonies urge students to keep up with rapid changes

KIMBERLY YEO

Try, fail, try again is the philosophy Mr. Lee Zheng De, a 20-year-old graduate of Singapore Polytechnic, has learnt to live by. Mr. Lee attempted a number of ventures before he launched Packdat.com, an online travel planner that has created over 5,000 successful itineraries in 16 countries across Asia.

Such an entrepreneurial spirit, as exemplified by Mr. Lee, Singapore Polytechnic’s 200,000th graduate, was lauded by Deputy Prime Minister and Coordinating Minister for National Security Teo Chee Hean at the institution’s 58th graduation ceremony yesterday.

An entrepreneurial mindset and lifelong learning are attributes needed more than ever, he noted, saying: “Rapid technological breakthroughs are fundamentally changing the nature of globalisation and our economy, the work that we do and the skills required.”

One way that Singapore Polytechnic helps students develop these qualities is through its entrepreneurship centre, SPiNOFF, which will soon be offering its programme to adults, as well as Singapore Polytechnic’s partners across the ASEAN region.

DPM Teo emphasised the increasing importance of lifelong learning in an economy that is undergoing constant change. Last year, more than 23,000 individuals took up programmes at the polytechnics to develop the skills that would allow them to stay relevant and productive.

Adaptability and continuous learning was also a theme at Republic Polytechnic’s 13th graduation ceremony. The ceremonies spanning the next six days will involve over 4,700 graduates.

“To stay on top of change, and to reap all the opportunities that are coming our way, what matters most is our willingness to unlearn old routines, pick up new skills and strive for excellence in whatever we do,” Ms Fu said yesterday.

In support of the nationwide SkillsFuture movement for lifelong learning, Republic Polytechnic has unveiled two new specialist diplomas: in digital content creation for business, and cloud architecting and management.

Valedictorian Nur Nazurah Abdul Rahim, from the School of Technology for the Arts, encouraged her peers to pursue their passions tirelessly in order to succeed.

“At the end of the day you need to push yourself to get what you want. You have to work for it,” said the graduate in media production and design.
He's over a decade older than classmates

AMELIA TENG
Education Correspondent

Mr Dominic Li's warm and good-natured personality betrays little about the struggles he experienced in his earlier years.

When he was four, his mother left the family. He and his older sister were sent to live with different relatives, after their father turned to drinking and gambling. These took a toll on him as a child.

"I was emotionally unstable back then. I always questioned why don't I have a mum?" said the 33-year-old.

It may have taken longer than usual, but he graduated last week with a near-perfect score of 3.94 from Singapore Polytechnic's energy systems and management course. Mr Li, who also received the Low Guan Onn Gold Medal by Singapore Polytechnic, was not always the best in his studies.

Despite his best efforts, he had several setbacks - from scoring 154 in his Primary School Leaving Examination, retaking his English O-level paper after failing it, flunking his first year of school at Pioneer Junior College and dropping out.

But these obstacles also made him stronger, especially when he decided to sign on with the Singapore Armed Forces (SAF) after national service. After eight years as a military expert, he was offered an SAF study award and took the chance to enrol in a polytechnic.

This time, there were no excus- es. "I didn't want to fall back like I did 10 years ago. I didn't want to miss out on this chance," he said. He had also grown in maturity and discipline, he added.

Mr Li, who is more than a decade older than his classmates, said it was a pleasant surprise that he "blended" well in school. His classmates were willing to help when he asked questions, he added.

Mr Li, who is now living with his sister and her family, said: "My journey has been quite rough but not smooth sailing. But I've learnt to always believe in myself and not to rely on others."

Mr Dominic Li is one of the top eight graduates from Singapore Polytechnic.

ST PHOTO: SYAMIL SAPARI

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**Summary of Chinese article**

**Seven months to invent Singapore's first hoverboard**

Article featured Amos Ng, Leon Kwang, Chen Xiao Wei, Thant Zaw Aung and Lew Lin from SP's Polytechnic Foundation Programme, a scheme to prepare Normal (Academic) students for direct entry into diploma courses.

ST PHOTO: SYAMIL SAPARI

ST PHOTO: SYAMIL SAPARI
The local universities are gradually accepting more polytechnic graduates into their medicine courses.

At least 11 of them scored places this year in the medical schools of the National University of Singapore (NUS) and the Nanyang Technological University (NTU). These numbers have grown since NUS' Yong Loo Lin School of Medicine took in its first two polytechnic graduates 10 years ago. Of those accepted this year, six are from Singapore Polytechnic (SP) – the highest number from a single polytechnic to be accepted for the local medicine degree courses.

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Ms Mah said that SP's biomedical science and biotechnology courses cover topics such as monitoring and managing diseases, research in diagnostics and cure, and the production of pharmaceuticals.

Students learn knowledge and skills that "form a good foundation for a career in the biomedical science, pharmaceutical and healthcare sectors," she said.

Polytechnic graduates said they knew it would not be easy to enter medical school. SP biomedical science graduate Kimberley Lim said that when she chose to enrol in the polytechnic, she knew her chances of getting into medical school would be "way slimmer". With an O-level score of six, she was more than qualified to study in a junior college, but she wanted to pursue her interest in the healthcare sector.

"As a first-aider, I came across patients with severe bleeding, allergic reactions, spinal injuries, for instance... I wanted to learn more to know what to do in those situations," said the 23-year-old.

The A levels would be too general... My poly course exposed me to a lot of modules such as immunology, basic anatomy and biochemistry," said the 20-year-old who will read medicine at NUS this month. "Of course medicine will be more in-depth, but I feel like I've had a small introduction to it."

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Insiden masa hospital sentak pelajar pelajar poly supaya cemerlang belajar


BEPBTOTOR 04

Summary of Malay article

His father’s push to excel in poly

Article featured SP Diploma in Creative Writing for Television and New Media (DTVM) student, Kirstin Yip and her passion in Creative Writing. Although her excellent ‘O’ Level results could have allowed her to enrol in a top JC, Kirstin chose SP’s DTVM to pursue her passion. Writing is a big part of Kirstin’s life and she often used it to express her inner emotions.

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With SP, it’s so possible!

As a child, Ms Choy Yin Shan was always curious about ships. "How do ships made of steel float on water? Where do the goods in ships go to?" she wondered. It was later in secondary school that her teachers told her about the maritime industry and Singapore's role as one of the world's busiest ports.

The former Yuan Ching Secondary School student decided to enrol herself in Singapore Polytechnic's (SP) maritime business course after her O levels, despite qualifying for junior college. "I heard that polytechnic was more fun than junior college. My parents let me choose what I wanted to do based on interest," said Ms Choy, who graduated this year with a grade point average of 3.8.

The 20-year-old daughter of a machinist and a housewife was also the valedictorian for the graduation ceremony last Thursday. Her older brother is studying mechanical engineering at the Nanyang Technological University (NTU).

Her three years at SP have given her an insight into the operations management that goes on at ports and taught her how container space on board a ship is managed. She also picked up knowledge in electronic commerce and maritime law along the way.

A six-month internship with a shipping registration company during her second year gave her the chance to help out with events in the maritime industry as a training coordinator.

She has applied to NTU's maritime studies degree course, but is undecided on her plans, even though some of her peers have already chosen the university route. "I am still thinking whether to study or work first. I want to gain more knowledge and further my interest in this field," said Ms Choy, who hopes to work in the oil or ship management sector.

"I think the diploma is good enough for me to venture out to work and there are many opportunities, even without a degree. I believe that skills are more important and pay will rise with experience."

Ms Choy, who graduated with a diploma in maritime business, has applied to NTU's maritime studies degree course, but is still undecided whether to study or work first. ST PHOTO: LAU FOOK KONG

What drives top poly grads

Diploma opens up options, opportunities

POLYTECHNICS ARE IN THE THICK OF GRADUATION SEASON AND THE STRAITS TIMES FEATURES SOME OF THEIR TOP ACHIEVERS

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"I think the diploma is good enough for me to venture out to work and there are many opportunities, even without a degree. I believe that skills are more important and pay will rise with experience."
Poly grads: Work first, degree later

These top students from Singapore Polytechnic's graduating cohort of 2017 would rather gain experience first on the same level as degree holders.

Miss Ong also studied media and communication and did a four-month internship with advertising agency Arcade.

She said: "My internship experience made me realize that you do not need studies to get you far. You just need to learn fast and adapt."

Miss Tan, who studied creative writing for TV and new media, was made an assistant director during her internship at production company Big 3 Media.

She said: "Since my company gave me a foot into the industry and people are willing to invest trust in me, I think working first is a good path to take."

Miss Tan added that the company's culture is quite good. The role challenged her to step out of her comfort zone, and Miss Tan joked that she even developed a scary alter ego in the demanding production field.

The graduates are not ruling out university completely, but may do so to explore other fields of study, such as visual communications or film.

Miss Chong said that pursuing a degree appealed to her because she enjoys learning.

She said: "You can learn on your own but it will take a lot of discipline. "University still gives you a platform to expand your knowledge."

But all three are happy where they are now.

Miss Chong said: "School is always there, but the job may not always be there. "If you let go of your job, it may not come back to you."

Julia Tan

They are top graduates from Singapore Polytechnic's (SP) graduating cohort of 5,600 this year.

Yet they will not be pursuing a degree anytime soon.

They have chosen to work first to gain industry experience.

Miss Esther Tan, 24, and Miss Chong Han Lyn, 20, are Institutional Medalists.

Miss Tracy Ong, 19, won the Batey Scholar Award, and was mentored under brand guru Ian Batey, who came up with the concept of the Singapore Girl for Singapore Airlines.

Miss Chong, who is working with media agency Starcom, said she does not feel that a degree is necessary for her career in the industry.

The former media and communication student said: "A degree might matter when it comes to promotion. "But my company has directors who do not have degrees and they are on the same level as degree holders."

Miss Ong also studied media and communication and did a four-month internship with advertising agency Arcade.

She said: "My internship experience made me realize that you do not need studies to get you far. You just need to learn fast and adapt."

Valuable

"That makes you more valuable than someone who holds a degree but does not have the skills nor the ability to adapt quickly."

Miss Tan, who studied creative writing for TV and new media, was made an assistant director during her internship at production company Big 3 Media.

No other intern had taken on the role before.

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Poly graduates not pressured to enter university

SP's Diploma in Biomedical Science is one of the courses with the lowest ELR2B2 scores among all the poly courses. Students who graduate from poly now have many pathways open to them, some of these include heading to university, starting their own business or heading into the industry.

An increasing number of poly students are choosing to work after graduating from a poly and more students place greater emphasis on work experience rather than a university degree.
Mahu reka bentuk kapal agar suasana bekerja selamat

KISAH nahas di tengah lautan seputri kapan terbalik, yang diceritakan sudah masa sering menarik minat Cik Siti Shamila Muhammad Hussain semasa membaca.

Malahan, pendedahan tersebut memupuk rasa malu mendalam terhadap dunia kelautan dalam dirinya.

Selepas tiga tahun bertugas dalam industri, Cik Siti Shamila, 25 tahun, akhirnya mengambil keputusan berhenti kerja dan mendaftar di Universiti Newcas-
tle (di bawah program ijazah bersama Insti-
tut Teknologi Singapura (SIT)).

"Saya memang ada razia rasa yang tidak berkerja dalam industri ini, termasuk pak cik dan sepupu. Sekarang lagi, macam-macam pengalaman pahit manis mereka akan dicampur dengan adanya pengalaman bekerja di kapal," cerita Cik Siti Shamila.

Dengan adanya pengalaman bekerja, Cik Siti Shamila berpendapat, ia menjadi satu kelebihan apabila beliau mahu memenuhi bagi iajazahnya itu nanti.

"Setelah melengkapi diri dengan pengetahuan tentang permian dan cara bekerja dalam industri, kini dengan mengamalkan kemahiran saya dalam reka bentuk kapal, ia akan membuka pintu bagi saya untuk terlibat dalam proses reka capa – sesuatu yang memang saya minati sejak dulu lagi," tambahnya.

Apabila ditanya tentang cabaran sebagai wanita dalam industri kelautan, Cik Siti Shamila tidak menolak adanya tangan-

pana kaum Hawa lebih sukar memenuhi keupayaan diri, bagaimana kaum Adam.

Cik Siti Shamilah berpendapat, ia menjadi pengetahuan tentang perniagaan dan cara bekerja dalam industri, kini dengan mengamalkan kemahiran saya dalam reka bentuk kapal, ia akan membuka pintu bagi saya untuk terlibat dalam proses reka capa – sesuatu yang memang saya minati sejak dulu lagi," tambahnya.

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Digital Animation student carves his way back into family

Zhou Yi Bao who expressed that sculpturing improved his relationship with his father. At 15, Yi Bao was a rebellious teen who treated his house as a hotel and only came back to sleep at night. It was not until Yi Bao graduated from ITE before he realised that his attitude took a toll on his family. It was then when he realised his family never gave up and continued to show him warmth and concern. He then enrolled in SP’s Diploma in Digital Animation after, His relationship with his father, who is a food sculptor, was mended when they exchanged pointers on Yi Bao’s sculptures for school. Today, he treats his father as his biggest motivation in life. Yi Bao will graduate in May 2018 and intends to join the Digital Animation industry.

Summary of Malay article

PENGALAMAN MEMATANGKAN:
Perjalanan hidup bapa Cik Nur Mahirah Mahmud berlaku lepas beliau berusia 12 tahun memungkinkan untuk bangkit sehingga lulus menuntut Diploma dalam Penulisan Kreatif untuk TV dan Media Baru dari SP bulan depan. – Foto YOUTH.SG

Summary of Chinese article

Digital Animation student carves his way back into family

Zhou Yi Bao who expressed that sculpturing improved his relationship with his father. At 15, Yi Bao was a rebellious teen who treated his house as a hotel and only came back to sleep at night. It was not until Yi Bao graduated from ITE before he realised that his attitude took a toll on his family. It was then when he realised his family never gave up and continued to show him warmth and concern. He then enrolled in SP’s Diploma in Digital Animation after, His relationship with his father, who is a food sculptor, was mended when they exchanged pointers on Yi Bao’s sculptures for school. Today, he treats his father as his biggest motivation in life. Yi Bao will graduate in May 2018 and intends to join the Digital Animation industry.

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Digital Animation student carves his way back into family

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Family problems do not stop success

When preparing for her Diploma, Nur Mahirah Mahmoud was forced to fight with emotional turmoil caused to family problems as her parents would quarrel while going through a divorce. The traumatic experience forced her to mature quickly. Although she had plans to continue her studies in the Express stream, she had to settle for the Normal (academic) stream due to her problems. She knew she had to work hard to enter her desired course. Diploma in Creative Writing for TV and New Media at Singapore Polytechnic (SP). Three years later, she will be receiving her diploma with a grade point average (GPA) of 3.6. Her years in SP have made her aware of her strengths and interests in the field of production as well. Currently undertaking an internship with a local media company, she plans to take a gap year to expand her portfolio through independent work before pursuing an education in an overseas university.
With SP, it’s So Possible

Encouraging IT-savvy youth to take industry to next level

NG JUN SEN

11PADA usia 29 tahun, Encik Ade Dino Sutrisno Suffian Yusoff merupakan pelajar terma-

kuh dalam kohortnya.

Namun, ia bukan sesuatu yang janggal bagi

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With SP, it’s So Possible

10

With SP, it’s So Possible

andslides do not usually cross the minds of most people here, but it was an issue that Mr Pan Ziyue and Mr Wei Wenjie, both 18, wanted to tackle with technology. Said Mr Pan: “People don’t really talk about it, but the less developed regions around the world are very susceptible to landslides. Furthermore, they occur with little to no signs.”

The duo decided on their own to come up with MakeSense1, a landslide detector. Both of them are students in Singapore Polytechnic’s diploma in computer engineering course.

To predict the probability of a landslide, the detector leverages a cloud computing platform hosted by Amazon Web Services (AWS), and collects data based on the composition of the soil, the amount of rain received in an area and a tilt sensor that measures the steepness of the ground. All the data collected is stored on the AWS cloud.

Whenever these variables change, it could mean that a landslide is imminent, said Mr Pan. Due to a lack of resources, his hypothesis has not yet been scientifically proven, but he hopes to do so in future. The online programme, conceptualised by AWS in 2016, has reached more than 1,500 educational institutions globally.

Although their efforts paid off, and they won a special prize for MakeSense1 at the 9th International Programming Contest last year. The competition was organised by Kosen National Institute of Technology in Japan.

Apart from this project, Mr Pan, who finished a six-week stint with Nanyang Technological University’s satellite research centre in April, has grand plans for the future. “Someday, I want to create something involving aerospace engineering.”

TECH

USING THE CLOUD TO MONITOR THE LAND

ZAN SAM

POWER IN THE CLOUD

Cloud computing, or storing, managing and processing data via the Internet instead of on one’s own hardware, has been around since the 1950s, but the modern iteration of it has been popular only in the last decade or so. Students from AWS Educate’s partner schools have access to a self-paced programme, which covers different aspects of cloud computing, such as software development and big data analytics. The whole programme is split into bite-sized pieces, with students receiving badges certifying their skills after every module.

FUTURE PLANS

Mr Vincent Quah, the regional head of AWS education, research, healthcare and not-for-profit in Asia Pacific and Japan, said: “Locally, popular roles among students are data scientists and cloud architects. With the Smart Nation plan coming up, these skills will be very sought after as well.”

For Mr Pan and Mr Wei, creating MakeSense1 was an uphill battle because cloud creation was not in the school’s curriculum. “When we were in the development stage, we spent about three to four hours a day on AWS Educate,” said Mr Pan. This was on top of their studies and co-curricular activities.

Nonetheless, their efforts paid off, and they won a special prize for MakeSense1 at the 9th International Programming Contest last year. The competition was organised by Kosen National Institute of Technology in Japan.

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S’pore may get small satellites to do the work of big ones

New centre here to have them fly in formation so they cost less but work faster than big satellites

Zahidi Abdullah

Singapore could be one of the first few countries in the world to have small satellites flying in formation. This allows the satellites to do the same work as a larger one, but cheaper and faster.

This initiative would be the first such effort in Asia, said Minister for Trade and Industry (Industry) S. Iswaran yesterday at the Global Space and Technology Convention. The plan is a move by the new Satellite Technology and Research Centre, jointly launched by the National University of Singapore and ESA’s European Space Agency last week.

Mr Iswaran noted that the space industry has shifted to small satellites, whose numbers have increased from 20 in 2010 to more than 250 today.

“Aided by advancements in miniaturisation of electronics and in increased in companies offering space launch services, small satellites promise more comprehensive coverage and flexible usage at a lower cost,” said Mr Iswaran.

He added that the benefit of small satellites is that they can be used to perform a variety of functions, such as monitoring the Earth’s climate or providing internet services.

The new centre’s efforts to fly small satellites in formation require “high precision navigation and high-accuracy engineering”, said Mr Iswaran. However, it will build the “deep capabilities” needed to develop advanced satellite applications such as in-flight servicing.

The Global Space and Technology Convention, now in its 10th year, is organised by the Singapore Space and Technology Association (SSTA) and Chevron Towers.

As part of its efforts to promote cooperation in space technology, the SSTA has entered into a partnership with India’s Federation of Indian Chambers of Commerce and Industry, and will also sign an agreement with the French Aerospace Industry Association next week. Yesterday, the SSTA signed a memorandum of understanding with the National Trades Union Congress (NTUC) to support the Republic’s burgeoning space sector, such as through encouraging careers in the industry.

It also plans to launch a six-month-long student programme for space start-ups here in the second quarter of this year, said SSTA president Jonathan Phong.

There is a need for a “more structured and sustainable accelerator programme to support space start-ups in Asia,” he added.

One start-up that could benefit from the programme is Makev Foundry, comprising Singapore Polytechnic engineering students

With SP, it’s so possible

Aided by advancements in miniaturisation of electronics and an increased in companies offering space launch services, small satellites promise more comprehensive coverage and flexible usage at a lower cost.

Building networks to get into the industry

Summary of Malay article

Building networks to get into the industry

Article featured SP’s Diploma in Electrical and Electronic Engineering student, Shaza Dhanea Rahmat, who underwent an overseas internship at the Toba Maritime National College of Technology (NCMT) in Japan. For six weeks, Ms. Shaza, along with two other SP students developed a rescue robot that can be used to find earthquake victims. She feels that the internship has given her the advantage of networking, citing that it is important to maintain relationships with people in the engineering industry.

Julian Kang, Colin Quek and Pan Fan.

The three-year-old annual competition, organised by the SSTA and aerospace firm Airbus, is one of the space technology for disaster relief.

“The trio, who developed an app that allows people to access satellite networks to report their locations after a disaster, won the potential to see the space sector is on the rise,” said Mr Pan: “That’s where we do, doing something that benefits society.”
On the bottom of the hoverboard is a box of six superconductors. When cooled, the superconductors have special properties that allow them to be suspended in the air within a magnetic field.

Singapore could be one step closer to a levitating board that can move dishes from kitchens to diners, or deliver mail and packages in a building, among other things.

Inspired by the second Back To The Future movie from the 1980s, a team of five students from the School of Mechanical and Aeronautical Engineering in Singapore Polytechnic (SP) built a hoverboard that can levitate and move along a track.

The team, led by lecturer Leong Ying Wei, 34, comprises Mr Amos Ng, Mr Leon Kwang, Mr Chen Xiao Wei, Mr Thant Zaw Aung and Ms Lew Lin.

In the movie, protagonist Marty McFly (played by actor Michael J. Fox) uses a hoverboard to escape a gang, leading to an exciting chase on hoverboards.

For their final-year project, the team put together the hoverboard, based on the phenomenon of quantum levitation, or using quantum physics to get an object to float. Here is how it works.

On the bottom of the lightweight hoverboard is a box consisting of six superconductors. When cooled, the superconductors have special properties that allow them to be suspended in the air within a magnetic field. The hoverboard is matched to a magnetic track from which it will levitate.

Liquid nitrogen cools the superconductors to minus 196 deg C, which causes the box and hoverboard to be held in place in the magnetic force field of the track. All it needs now is a little push to get it going along the track, where there is no friction.

The product does not require electricity or combustion of any fuels, which makes it much cleaner and better for the environment, compared with the magnetic levitation technology used in bullet trains which uses much electricity, the team explained.

Since there is no friction between the board and the track, there is little wear and tear expected, so minimum maintenance will be needed.

The team also set the record for “strongest quantum levitation effect on a hoverboard” in the Singapore Book of Records.

The team could place a 70.9kg weight on their hoverboard, far exceeding the initial target of 60kg.

Said Mr Leong: “We wanted to make something that seemed impossible in the past but is possible now.”

They also had many other takeaways from the project, such as the importance of teamwork and perseverance, even if they had to work outside curriculum time.

“It was a valuable experience for all of us – long but worthwhile,” Mr Kwang, who is the group leader, said.

Although still a prototype, the innovation could potentially be used in industries such as transport and logistics, food and beverage, as well as recreation.

For instance, restaurants could make use of such technology to serve dishes to customers, such as at a conveyor-belt sushi restaurant.

Amusement parks could also build levitating roller coasters, increasing the intensity of the ride for thrill seekers.

The team will present the project at the annual SP Engineering Show next month to industrial partners and professionals.

KYAR NYO THINN and SHERVON LEE
Polytechnic students win awards for using technology to improve lives

ISABELLE LIEW

Six polytechnic students have used the latest technology to develop a new tracker for dementia patients, which saw them receive a one-off cash award of $1,000.

In all, 158 students from 51 educational institutions were recognised for their achievements at the Special Awards Presentation Ceremony held at Republic Polytechnic.

Mr Chua and Mr Neo used low power wide area network (LPWAN) technology called Sigfox for their dementia tracker.

Mr Chua said: "My late grandmother suffered from dementia for 12 years. I remember when I was in Primary 3, she went out with my grandfather, and he came back alone and flustered. Our whole family panicked and scrambled to find her."

"When we were given this project, I was interested in those with dementia and their caregivers," Mr Neo said. "When we were doing research, there were only four search results on Google about this new technology, so we had to work through much trial and error to get it right!"

Six students from Republic Polytechnic's diploma in design for user experience (DUUX) and diploma in electrical and electronic engineering, also won the award for a collaboration with the Movement for the Intellectually Disabled of Singapore (MINDS).

Their project called CHITI, consists of a Pachí, a wearable tracking and fidget device similar to a fidget cube, Hochi, a home monitor, and a mobile application that tracks and monitors the intellectually disabled.

Pachí is also able to detect if the wearer falls and alert the caregiver through e-mail and push notifications from the application. Hochi has a camera attached inside it, which caregivers can view through the app. It is also able to play music and voice recordings.

"DUUX student Subramaniam Shanmugam, 21, said: "We had a picture with about 15 intellectually disabled adults from MINDS and their parents, where we conducted observations to try to come up with designs to their needs."

"Dina Dang, 22, added that after conducting their research, the team tried to keep the device as cost-efficient as possible by using off-the-shelf materials. They 3D-printed the device to make it as cheap as possible."

"Our goal was to make this product as affordable as possible, and the team believed there was a market for it in Singapore, and Malaysia."

"The emergency button on the device, once pressed, would alert the caregiver on the phone through text messages and push notifications from the application. The device also has a fall alarm, able to play music and voice recordings. Caregivers can view through the app. It is also able to play music and voice recordings."
New platform helps students bring energy-efficient ideas to life

TAI SHU YAN

A locally designed solar cone, which absorbs more than five times the solar energy that a solar panel can, could help generate energy for residential use and reduce utility costs.

The solar cone, or Scone, has an inverted conical shape and has special lenses that maximise energy absorption onto a solar cell, harnessing more energy per unit area.

As it is compact in size compared to a flat solar panel, it also addresses the problem of an increasing short-age of suitable rooftop space for solar energy generation.

If Scone is installed on the rooftops of residential units, more heat can be absorbed and converted into energy for heating water for residential usage. This could reduce the cost of energy for residents.

A prototype of Scone was created by three Singapore Polytechnic (SP) students and showcased yesterday at the launch of ideaBox, a platform which offers students the space and resources to crystallise their ideas into energy- and cost-saving technologies.

An initiative by SP and Singapore Power Group (SP Group), ideaBox selects ideas with potential from tertiary-level competitions, and passes them to SP students to translate into product prototypes, with guidance from industry experts.

SP Group will mentor students in areas like engineering, design and media, and will provide $1 million in funding over the next three years.

Mr Wong Kian Yen, group chief executive officer of SP Group, said: “We strengthen our collaboration with Singapore Polytechnic by exposing their students to realworld challenges, to test out new ideas and build solutions to implement their ideas.”

The idea for Scone was first presented by five students from various tertiary institutions at the Singapore Frontier Challenge last September.

The project came in second in the competition, after Cloud Nine, which utilises rainwater collected on rooftops of high-rise buildings to generate electrical energy. Cloud Nine has also been prototyped at ideaBox, and is preparing for field deployment in the next three months.

Mr Lester Loh is one of the three SP students working on the Scone prototype.

“This is just the start, and maybe it will take some time to be released into the market... We hope to just do further research on how to improve the product,” said the 19-year-old, who is starting his third year in electrical and electronic engineering.

Tshuyan@sph.com.sg

Singapore Polytechnic electrical and electronic engineering students (from left) Lester Loh, 19, Ke Keng Woe, 20, and Md Tanvirul Huda, 19, are working on the Scone - or solar cone - prototype, which can potentially absorb more than five times the solar energy that a solar panel can.

THE STRAITS TIMES 04 APRIL 2018

Robot buddies may soon help children with ADHD

CHERYL TEE MIN

Children with attention defici hyperactivity disorder (ADHD) could have a robot companion to help them with their studies from March.

A robot-cum-mobile application has been developed by a team of three students from the diploma in bioengineering course at Singapore Polytechnic (SP), in collaboration with tech company Neuroo.

It was among 96 final-year projects displayed at the annual SP Engineering Show yesterday.

The robot and app will be paired with the SenzeBand – which tracks the brainwaves of its user via Bluetooth. The SenzeBand monitors a user’s concentration levels during study sessions. Every 15 minutes, the user is given a rating from one star to five stars. If concentration levels fall below 2.5 stars, this triggers an alarm from the robot to get the user to re-focus.

Users can see how their concentration has improved week on week with the app’s stored data.

“ADHD kids have impulsiveness issues, so they might not know what they’re doing right. So they’ll be like, ‘Oh, I’m doing the right thing, even when they’re not,’ said Mr Denzil Ang, 22, one of the students behind the 10-month-old project.

The new platform will be tested among ADHD children in March. A retail price of $600 has been set.

Another project presented yesterday’s event may be brought to market soon in the RSP-90 rehabilitation arm brace, a portable device that helps stroke patients to regain motor control in their limbs through stretching and strengthening exercises.

A team of three SP students worked with occupational therapists at St Andrew’s Community Hospital to better understand patients’ needs. “Some patients are not very mobile, but still have to travel to places for therapy. This is where our idea for it being homebased came from,” said team member Tan Shui Kian, 20.

The team has tested the arm brace on 10 healthy subjects over the past six months. The arm brace is awaiting approval from the authorities.

The team hopes to launch it at St Andrew’s Community Hospital and rehabilitation centres within the next six months.

Other projects showcased include a robotic barista, a mechanical arm that dispenses drinks such as coffee and bubble tea, and an automated transporter that senses and avoids moving obstacles.

teemin@sph.com.sg

THE STRAITS TIMES 19 JANUARY 2018
Students driven by struggles of grandparents

Sheryllyn Sim

When Mr Terence Thong’s grandmother developed dementia two years ago, he and his family were completely at a loss.

Mr Thong told The New Paper: “It came as a shock as we had never dealt with dementia in our family before. We didn’t know the proper procedures or how to care for her.”

Eventually, they sought help from a care centre and learnt more about the condition.

His experience of caring for his grandmother, who died last year, spurred the 19-year-old to design Forget Us Not, a unique community care centre as part of his final year project.

His project was among the 150 designs displayed at the annual Singapore Polytechnic Design School graduation exhibition last week.

Focused on needs of dementia patients and their caregivers, the centre has sensory rooms for patients and interactive walls that when activated, reveal a visual and textile change to help patients navigate.

Mr Thong, who graduated with a diploma in interior design, said: “Through research, I understood that the play on the five senses through texture and colours is important to keep the patient engaged, which can slow down the dementia.”

He also designed a space for caregivers to communicate and seek help from one another.

He said: “From my experience, there is a need to have caregivers share their experiences, relate... the problem of dementia. That way, it does not feel like they are fighting the problem alone.”

Another featured final-year project was Mr Edwin Tan’s wheelchair prototype. The experience and product design graduate spent a day in his late grandfather’s wheelchair.

He had observed that his grandfather, who was diabetic and had both limbs amputated, had difficulty transferring himself from his wheelchair to his bed.

The flat hammock seat also caused pressure on his grandfather’s tailbone and damaged it. He would often stay in his room.

With input from patients and nurses from Gleneagles Hospital, Mr Tan designed a wheelchair that aims to tackle key issues such as comfort, independence and stability.

“Artistic and technical problems that emerged during the process included how to make the wheelchair height adjustable to fit the bed frame in any room. We also worked with the designers on aesthetics and ergonomics,” he said.

He hopes to keep designing products for disabled people.

Mr Tan said: “The idea of improving someone’s life through a product I designed really warms my heart. I want to continue making products to empower people.”

Pratishtha Tripathi/SPH

Raih inspirasi daripada rekaan jurubina tersohor Zaha Hadid

Landscape Architecture student is inspired by famous designer, Zaha Hadid

Article featured SP Diploma in Landscape Architecture student Abdul Latiff Bin Hamzah and the inspiration behind his final year project. Latiff had his eyes set on the landscape architecture industry since secondary school. He loves to bring ideas in his head to life and use them to create social spaces. His graduation project, titled “Sky Connections” was a perfect example. Latiff proposed a sky bridge that would connect four isolated buildings together. His inspiration came from famous architect, Zaha Hadid, and a desire to promote social connectivity. Latiff’s love for the community extends beyond just spaces. He was the Vice-President of the School of Architecture and Built Environment (ABE) club and also served as an ABE ambassador. He actively organised and participated in community service for Y-Stars, a group of teenagers and young adults with Down syndrome and other intellectual challenges. Moving forward, Latiff plans to pursue an architecture course in the University of Sheffield in the United Kingdom after serving National Service. He wants to widen his knowledge in Architecture so that he can build more spaces to bring the community together.
With SP, it’s So Possible

SP students draw inspiration from Mr Kiasu author

NUR SYAHINDAH ISHAK

Not everyone has the bragging rights to having sold their work at a comics convention.

But for 10 Singapore Polytechnic (SP) Diploma in Digital Animation (DDA) students, it was like a dream come true when their comics were sold at the Singapore Toy, Games & Comics Convention last week.

The students are part of Comics AX, an interest group mentored by Mr Johnny Lau, the celebrated author behind the Mr Kiasu comic book series.

Mr Lau spent five months with the SP students with the objective of nurturing the next generation of local artists and animators.

This is the first time that the 54-year-old has taken on a mentoring role at a local polytechnic.

Mr Lau told The New Paper that Comics AX is not meant for students who produce comics as a hobby. Rather, he was there to “guide and educate students on what it takes to build a career out of creating comics.”

Students in the group had many learning points and takeaways from the mentorship with the veteran artist. Most of them agreed that Mr Lau opened their eyes to the importance of story concepts and how to develop them in comics.

Miss Liew Li Qi, 19, a Year 3 DDA Student, said: “In school, they never taught us how to plan story concepts like how Mr Lau did. He would develop our concepts with us by asking questions and finding loopholes so this helps make our comics more engaging.”

The comic that Miss Liew developed is titled Cafe Alfheim, where four elves studying in Cafe Academy have to successfully open a cafe in order to graduate.

EXCITING

Another DDA student, Luqmaan Haziq Ramlee, 17, said his experience with Mr Lau was very fruitful and exciting.

Luqmaan’s concept is about a city girl who decides to run away and live in a forest but eventually stumbles upon a magical realm where she becomes the guardian of the forest.

Their comics are published together in the AX Paper, which went on sale at $2 at the convention. A total of 76 copies were sold during their two days at the convention.

The reaction gave the students more confidence and hopefully, they can continue this path and publish their own.

Mr Lau said: “It was fulfilling to see how the general public reacted to the students’ artwork. The reaction gave the students more confidence and hopefully, they can continue this path and publish their own.”

NUR SYAHINDAH ISHAK

Fast-track for SP accountancy students

SIM YAN LING

Singapore Polytechnic (SP) students now have the option of qualifying as a chartered accountant here and in the United Kingdom through an accelerated route that does not require a degree.

Yesterday, a tripartite memorandum of understanding (MOU) was signed by the Institute of Chartered Accountants in England and Wales (ICAEW), Deloitte Singapore and SP.

SP launched a part-time Professional Chartered Accountancy (PCA) course to better prepare and fast track students to complete the modules of the ICAEW Associate Chartered Accountant examination, which will help them become as chartered accountants.

They must still have three years of working experience before they can qualify as chartered accountants.

The MOU will support students looking for a career in accountancy and finance with an interview at Deloitte Singapore.

Mr Mark Billington, regional director of ICAEW South-east Asia, said yesterday: “The MOU broadens access. We are really keen on broadening access to who can become a chartered accountant.”

Miss Nur Ariyanni Binte Hamidon, 19, a third-year accountancy diploma student at SP, has taken up the PCA course.

She said: “A lot of people, especially in Singapore, think a degree is what everyone needs to get a job. But times have changed and experience is also important for accountancy. A degree is not the only option and pathway to become a chartered accountant.”

On future developments, Mr Yang Chi Chih, audit talent partner of Deloitte Singapore, said: “This MOU is just a start, and certainly does not exclude Deloitte working with any of the other polytechnics.”

This MOU is the first of its kind for ICAEW.
Setting sights on good quality of life

S’pore Poly student took up Nitec in Opticianry at ITE and Diploma in Optometry after seeing grandparents’ experiences with poor eyesight

**ADILNE TAN**

Wherever she visited her grandparents in northern Malaysia, Miss Tan Li Min, 21, would notice her late grandfather struggling on the stairs because his eyesight was affected by glaucoma. He had tunnel vision in one eye and was completely blind in the other.

But he refused to be housebound and continued riding his motorcycle on the road in Kelantan state, even after he was injured in a road accident.

Miss Tan said: “I could see how determined my grandfather was to continue living a normal life despite his condition. I wanted to be able to help more people take care of their sight so they can still enjoy a good quality of life in their old age.”

Miss Tan was among student optometrists from SP who recently conducted free screenings of 80 elderly beneficiaries for common eye conditions affecting the elderly such as refractive error, cataract and glaucoma. It was her first time conducting an eye screening.

“I saw how important it was to my grandfather that he continued with his daily life despite his condition. I wanted to be able to help more people take care of their sight so they can still enjoy a good quality of life in their old age.”

Miss Tan was among student optometrists from SP who recently conducted free screenings of 80 elderly beneficiaries for common eye conditions affecting the elderly such as refractive error, cataract and glaucoma. It was her first time conducting an eye screening.

“Setting sights on good quality of life”

**THE STRAITS TIMES | 16 OCTOBER 2018**

Palm readers, robot assistants at vending machine trade show

**VENESSA LEE**

A vending machine that can “read” your palm for cashless payments is among the highlights at a trade show for vending machines.

Besides technology embracing artificial intelligence and robots, some 40 vending machines which dispense products as varied as stationary, snacks, pet food and inner-carriage are on display at SP Vending Tech 2018.

The three-day event, which opened yesterday at Singapore Polytechnic’s School of Business, with focus on new technologies and innovations, is organised by the polytechnic’s School of Business, Tourism and Infocommunication Studies, who work with the vendors at the show.

Singapore’s business school already has 28 vending machines in its foyer, a project called Nessmuk, which it claims is the largest cluster of vending machines in Singapore.

Organisers and exhibitors hail the increasing visibility of vending machines – including machine dispensing chilli crab and pop-ups as a way to promote the robot.

Mr. Andrew Tan, centre director at the polytechnic’s Business Information Centre, said: “SP Vending Tech 2018 is the first of its kind in the education sector. Our objective is to encourage industry players and encourage further improvements in vending technologies.”

A representative of DeepBlue Technology (Shanghai), business development manager Miss Xing, said at the trade show that the Chinese technology company is in discussions to enter the Singapore market.

Its TakeGo vending machines, which can be found in China and Australia, use palm-Recognition technology linked to an e-wallet so users can “unlock” a vending machine using their palms to get drinks and snacks without the need for coins.

Other forms of biometric identification are also on display.

A self-driving robot that collects a box pizza from a pizza vending machine highlights the potential of robots in delivering food and other items, which can reduce costs and provide consistency in service, said Mr. Lee Leng Kue, the managing director of Ascentides, the Singapore company that is exhibiting the robot.

Some food and beverage retailers are looking at ramping up their vending machine numbers as these can operate beyond normal business hours.

Mr. Francis Ng, 46, the chief executive officer of restaurant chain House of Seafood, said: “We want to scale up to 50 locations in total in about two years.”

House of Seafood currently has four vending machines selling cooked or frozen chilli crab, black pepper crab and salted egg crab dishes.

Mr. Ng said: “Besides cutting manpower costs, the advantage of vending machines is that if we choose a wrong location, we can change it, which can save on rental compared with running a restaurant.”

Meanwhile, pop-up business Mr. Popish, which has 10 vending machines here, plans to unveil its more compact, second-generation machines next year, aiming to serve up to 1,000 dishes from 100 vendors.

Singapore Polytechnic student, Sherly Tan Wei Peng, 21, who tried a $20 pop-up drink from the machine yesterday, said: “It came out delicious and fresh.”

One of the innovators, Mr. Ryan Wong, 23, who is in his final year of the Diploma in Business Administration course, said that working on the trade show had been an eye-opener in terms of grasping the needs of businesses.

“I helped me understand how industry partners operate in the real world,” said Mr. Wong, who is specialising in entrepreneurship.

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Above House of Seafood CEO Francis Ng showing off a vending machine which dispenses chilli crab, black pepper crab and salted egg crab dishes.

Top A machine with palm-recognition technology that collects payment from a customer’s e-wallet before dispensing the drinks.
With SP, it’s So Possible

Inspired by their childhood struggles, some students from the Singapore Polytechnic (SP) Diploma in Creative Writing for TV & New Media programme have created children’s books.

The books, written during a Creative Story Making module in their first year at SP, were launched at the Asian Festival of Children’s Content last Friday at the National Library of Singapore.

The module introduces students to the creative writing process and teaches them how to write a story effectively.

One of the books, The Rainbow Child – written by Jedidah Neo, Genevieve Ng and Kelly Chang – was inspired by Miss Ng’s struggles from the age of four.

Miss Ng, who graduated in 2013, said: “I was a very introverted and shy child. My parents had to constantly tell me to look up and make eye contact with people because I kept looking down.”

“It became more serious when Miss Ng started her studies at SP, where she found herself not being able to express herself to her friends and teachers.

The 25-year-old said: “I had really low self-esteem and even if I wanted something, I wouldn’t voice it out. I had to wait for my teachers to approach me.”

She finally overcame her shyness with the encouragement of her friends and family, and also by writing, which she enjoys.

The Rainbow Child tells the tale of a little girl named Ruby. Born in a town called Gloomsville, she is not afraid to let her true colours show.

Another book, Smile, is the story of a young girl named Lin who embraces what she has lost.

Written by Caitlin Ong, Judith Toh and Samantha Peng, it was inspired by Miss Toh’s struggle with being too self-conscious when she was younger.

The 18-year-old said: “I hope the story will send a message to young children that our inner selves are most important, and not our outer selves.”

The survey interviewed 785 young people between 15 and 35 years old around Singapore, including in Bishan and Orchard Road. It showed that phubbing had a negative impact on romantic relationships. A total of 58.2 per cent of respondents strongly agreed or agreed that it would negatively affect a relationship, while 54.5 per cent of women said likewise.

Course lecturer Clarice Sim, 34, said she was shocked by that finding as “females are portrayed as more sensitive in pop culture”.

Josin’s course mate, Danial Hadi, 18, said he found it surprising that so many of his peers were affected by phubbing.

“My generation grew up with technology, so we do not think much of the impact and never found it out of the ordinary or weird.”

SP is the only tertiary institution from Singapore to be selected to showcase its creative pieces at the Asian Festival of Children’s Content this year.

This is also the first time that SP has brought out some of its students’ works as a series of books.

Love me? Love me not. Phones on dates kill romance: Survey

SP students turn childhood struggles into children’s books

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Poly students with a passion
Early Admissions Exercises for polytechnics open

SIM YAN LING

At his interview for a spot in Singapore Polytechnic (SP), Mr Axel Teoh, 19, performed original rap songs.

The performance landed him a spot to pursue a diploma in music and audio technology.

The Institute of Technical Education (ITE) graduate, who studied event management, was initially clueless about his post ITE options.

“I did not know what to do (after graduation). When I learnt of the Early Admissions Exercise (EAE) through a talk, everything fell into place,” Mr Teoh told The New Paper.

“Who would have thought that I would be able to enter a course I have always wanted and show my passion through my talent rather than my (examination) results?”

The first-year student in Temasek Polytechnic (TP) was diagnosed with mild dyslexia when she was in Primary 5, and she suffers from learning difficulties.

During her N-level year, she enrolled in a therapy centre. There, she met a teacher who would shape her future.

Miss Chua was not confident that she would be able to get into the course of her choice based on exam results alone, but EAE allowed her to follow her passion.

Of EAE, she said: “It helps the people who need it most. Some people really have the passion for certain things.”

“So even when they do not get results that meet the cut-off points, EAE still allows them a place, so they can be more reassured and focus on their studies.”

Miss Chua now aspires to take a double degree in early childhood studies, saying: “The teacher who helped me was encouraging. She had a lot of confidence in me.”

One reason 1 (decided to) study early childhood was that I wanted to be someone like that to children.

“HELP”

“I want to be able to help them through whatever difficulties they are going through. I want to be someone like that to children.”

Miss Chua, who is pursuing a double degree in early childhood and management, said: “It helps the students who are going to Higher NITEC. So they can be more reassured and focus on their studies.”

Miss Chua now aspires to take a double degree in early childhood studies.

Mr Axel Teoh
PHOTO: COURTESY OF AXEL TEOH

Mr Teoh’s first music video was released that year, and he will be performing in this year’s SHINE Festival, a youth music event.

He said: “EAE is something unique. It is a breath of fresh air for ITE students, and it gives ITE graduates a path to go on. It is beneficial.”

Meanwhile, Miss Nicole Chua, 18, turned her learning difficulties into an opportunity to help others.

The Institute of Technical Education application window for N- or O-level students that entered ITE to apply for NITEC or O-level courses opened yesterday. It is open until Wednesday for ITE students, and it is open from June 22 to 28 for O-level students.

The ITE EAE application window for N- or O-level students that entered ITE or NITEC students to progress to Higher NITEC is open from June 21 to 28.

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Passion will help students shine

Students’ aptitude, interests key factors in Polytechnic Early Admissions Exercise

JESSIE LIM

In primary school, Shazia Warasat Ali would play online surgery games like Operate Now: Heart Surgery in her free time.

Now, Shazia, 17, is in her second year at Temasek Polytechnic, where she is pursuing a Diploma in Biomedical Engineering.

“I like to fix things; I would select the correct tools in order to perform the operation virtually. Even at home, I would constantly learn how to fix broken appliances,” she told The New Paper.

Shazia’s hands-on attitude led her to apply for early admission to polytechnic, as she wanted an education that would fulfill her passion for science and prepare her for working life at the same time.

Applications for the Polytechnic Early Admissions Exercise (EAE) start tomorrow for graduating O-level students seeking to secure conditional offers for their dream course.

Students are selected based on their aptitude and interests related to the course they have opted for. Each polytechnic has the discretion to assess applicants, who may undergo interviews, aptitude tests or submit portfolios during the selection process.

Successful applicants will receive a conditional offer, which will be confirmed upon the release of the GCE O-level examination results.

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“The EAE is not just about meeting a cut-off point. Students who have a strong passion in their chosen subject area will shine,” Faith Yuen, a first-year student in Ngee Ann Polytechnic, said.

In Secondary 4, Faith took part in the 39th International C.B. Paul Science Quiz, winning an Individual Merit placing in Category 2 (Upper Secondary).

“Faith has done consistently well in microbiology, where students learn about how infectious diseases impact our health,” said Mr Lau Quek Choon, one of Faith’s polytechnic lecturers.

“At SP, it’s So Possible”

Students’ aptitude, interests key factors in Polytechnic Early Admissions Exercise

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Note: The Chinese article discusses the development of capsule foods, specifically beverages and noodle soups, which can be brewed with a capsule coffee machine. capsule coffee machine promises a convenient and quick way to prepare these foods, which traditionally take hours to prepare. The capsule technology allows for the convenient preparation of drinks and soups, enhancing the accessibility and convenience for consumers.
Training of workers changes along with tech revolution

New initiatives include tie-ups between training providers and employers for workplace learning

**NG JUN SEN**

As the manufacturing sector rides the wave of emerging digital industrial technologies, or Industry 4.0, the training of its workers is also going beyond the traditional classroom setting.

A view of initiatives announced yesterday will, for instance, allow training to be taken to the workplace by way of online modules. Meanwhile, a new robotic lab will let companies test robotic solutions.

Behind these moves is the belief that a skilled, nimble and prepared workforce lies at the heart of Singapore’s manufacturing strategy, said Senior Minister of State for Trade and Industry Koh Poh Koon yesterday.

Singapore wants to make sure that workers are the ultimate beneficiaries of the technological revolution, rather than being left behind.

“A successful Industry 4.0 in Singapore is only possible with worker 4.0,” said Dr Koh.

**CrUCIAL FACTOR**

A successful Industry 4.0 in Singapore is only possible with worker 4.0.

**NEW FOCUS**

Focus on workplace learning through online modules.

**INDUSTRY 4.0**

Industry 4.0 is the current era of industrial change marked by the arrival of networked technologies, robots, artificial intelligence and 3D printing to the factory floor.

Speaking on the second day of the Industrial Transformation Asia-Pacific trade show, which ends today, Dr Koh highlighted that one key initiative is SkillsFuture Singapore’s new continuing education and training (CET) strategy for advanced manufacturing.

The strategy, launched yesterday, emphasises partnerships between training providers and employers in order to groom talent, said SkillsFuture Singapore.

Total engineering firm Unvac Precision Engineering, for example, trained up with Singapore Polytechnic (SP) at the trade show to develop a customised set of training plans for the company to upskill its workers and supervisors.

But instead of the trainees heading to SP to attend courses, the training plan focuses on workplace learning through online modules.

**INDUSTRIAL DATA ANALYTICS**

**Innovation Platform**

Innovation platform developed by the Singapore Maritime Institute and SP to collaborate with the industry and research community to develop technological solutions and training systems that will help reduce maritime incidents.

It will be operational by the fourth quarter and also focus on maritime navigation and operations on board vessels.

The guest of honour at the conference, Senior Minister of State for Transport and Health Lam Pin Min, said CESM’s training programmes will make use of augmented and virtual reality and focus on new modelling and simulation tools that enhance navigational safety, in tandem with the development of Maritime Autonomous Surface Ships.

Mr Edwin Loh, SP’s senior manager of technology operations, told The Straits Times that the next five years, CESM will aim to develop a Next Generation Navigation Simulator (NGNS), which will perform modelling and simulations of a complex port environment, as well as new vessel designs and operational concepts.

Mr Loh said: “As the upcoming Tuas mega port becomes operational, traffic volume is expected to increase over time. The NGNS can be used to simulate operational challenges and recommend optimal solutions for safe navigation.”

He added that SP students embarking on internships or final-year projects can be involved in the centre as well.

Dr Lam also announced at the conference, held at the Marina Mandarin Hotel, that the Maritime and Port Authority of Singapore (MPA) will invest $500 million in developing a VHF Data Exchange System (VDES); a device capable of real-time, high-bandwidth ship-to-shore communications, over the next three years.

By combining data from the VDES with data analytics, the MPA will be able to predict traffic hot spots and areas with higher collision risk. The MPA will also upgrade the Visual Traffic Information System. Improvements will be made to the resolution of CCTV and video analytics capabilities.

With SP, it’s so possible.

Noting that there were more than 380,000 vessel movements in Singapore waters last year, Dr Lam added: “Despite the heavy traffic, the number of major incidents has dropped over the last 10 years, from about one incident per 100,000 vessel movements in 2008 to less than 0.3 last year.

“Such an improvement is only possible when each and every one of us takes personal responsibility to put safety first. But we cannot be complacent. We must continue to work at this.”

**NEW 14M CENTRE**

**New Centre Aims to Improve Maritime Safety**

To be operational by Q4, it will also focus on navigation and operations on board vessels.

**IsABELLE LIew**

A Centre of Excellence in Maritime Safety (CEMS) will open at Singapore Polytechnic (SP) later this year at a cost of $14 million.

Announced at the third International Safety@Sea Conference yesterday, it is being launched by the Singapore Maritime Institute and SP to collaborate with the industry and research community to develop technological solutions and training systems that will help reduce maritime incidents.

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**With SP, it’s so possible.**

**THE STRAITS TIMES | 21 OCTOBER 2018**

**THE STRAITS TIMES | 21 JUNE 2018**
For 18 weeks, Mr Bryan Tan was paired up with a social worker from Sheng Hong Family Service Centre. He listened in on case sessions and case conferences and went on home visits.

During his internship, the Singapore Polytechnic (SP) student was tasked to observe and give his assessment of what he felt was going on with various families, applying the psychology theories he learnt in his pursuit of a diploma in applied drama and psychology (DADP). His opinions carried weight, even though he was only an intern.

If he suspected family violence, child protection officers would step in. “In one case, my input prompted an intervention programme to help some unemployed people,” said the 20-year-old final-year student.

Mr Tan’s internship last year was part of a pilot programme organised by SP, which aims to roll out enhanced internships for DADP students.

SP signed a Memorandum of Understanding (MOU) with six social and community service agencies yesterday.

“From now to September, we are hoping to get more partners on board the enhanced internship programme,” said Ms June Wee, the DADP course manager.

The enhanced internship will provide students with partners from agencies who will train them on mentorship. The students will also receive clearer learning objectives, which will be created by SP and the respective agencies.

Mrs Sara Tan, executive director for Society of Sheng Hong Welfare Services, one of the agencies that signed the MOU, was encouraged by the commitment shown.

At a community event in Hougang, she watched a play by the interns that drew on the themes of family.

“Saw the beauty of the play and how it was able to make us reflect on sensitive topics,” said Mrs Tan, 58.

“These students bring in a sense of energy as well as the knowledge in drama and psychology they learn from school.”

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she travelled the world for a year on maritime internship

Samfrey Tan

When Miss Amelia Pickering, 20, sailed through the dangerous Gulf of Aden, she placed nets in the passages of the container ship and readied water hoses with the crew in case they were boarded by pirates.

Miss Pickering (right), a graduate of the Diploma in Nautical Studies at Singapore Polytechnic (SP), was on a year-long internship with American President Lines (APL), which ended in April 2016.

She told The New Paper: “Although it seemed like a movie, (the pirate threat) was real. I couldn’t do much but adapt accordingly.”

Almost all SP students do an internship, with some going abroad to countries like Australia, China, Japan and Korea.

As a deck cadet, Miss Pickering helped the officers navigate routes cluttered with small fishing vessels and stowed or discharged containers at ports during her time at sea.

She said: “I went ashore and visited Valencia’s museums, San Francisco’s Alcatraz Island and the Golden Gate Bridge — those moments felt like a holiday.”

Being the only woman among the crew left her feeling intimidated and lonely at first.

“I felt that I couldn’t handle the strenuous tasks as well as my male colleagues.”

But it got better after the first two weeks, as the rest of the crew — from China, India, Malaysia and Indonesia — were all friendly and made sure she “always had someone to ask questions”.

Miss Pickering is following in the footsteps of her father, who works on dredging vessels, and her parents were supportive of her stint at sea.

She has graduated from SP and is a harbour pilot at the Port of Singapore Authority.

Her mother, Madam Suraya Ali, 51, who works as a sensory panelist, said: “Initially, I was afraid as she was going to be surrounded by men and might suffer from homesickness. But she is independent, loves adventure and she handled herself well during the internship.

“I knew she would learn and see things there that aren’t in a regular office job.”

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Only 16, This Singaporean Teenager Is Already A Serious App Developer And Runs His Own Startup

M. Shazni

The youngest of the three scholars from Singapore, Dalton Ng first realised his love of programming at 11, when he was developing his own mods for Minecraft.

He feels that as a young developer, the ultimate validation of your work is to have it judged on a world stage, maybe even having the chance to demonstrate it to renowned industry leaders.

The WWDC Scholarship is a notoriously intense competition from students worldwide.

For Dalton, 2018 was his first time applying for it and to his surprise, he got in. In preparation for his showcase at WWDC 2018, he drew inspiration from the late Stephen Hawking to create his app, Voyager.

He is no stranger to creating apps about astrophysics, having previously developed an app called SpaceRace which aggregates content and articles about space into a simple-to-read newsfeed.

In his app Voyager, he turned his love for space into an educational playground through a virtual version of the Voyager 1 probe.

Dalton developed the app around two key Apple developer features — CoreML to create the in-game fictitious AI Karl and SceneKit to render planets and live scenes in space.

To round off the interview, Dalton urges more student developers in Singapore to take up the challenge of applying for the WWDC scholarship.

He feels that as a young developer, the ultimate validation of your work is to have it judged on a world stage, maybe even having the chance to demonstrate it to renowned industry leaders.

After attending WWDC, Dalton hopes to return to Singapore Polytechnic and share his newsfeed.

This article was written by M. Shazni, and first appeared on Vulcan Post.
Individuals should take charge of own learning journey: Iswaran

AARON CHAN

Educational institutions and industries must work closely to ensure that knowledge acquired and skills developed remain relevant to changing needs of the economy.

But even as they evolve, individuals must take ownership of their own learning journeys and to forge their future, said Mr S. Iswaran, Minister for Trade and Industry (Industry). "Rapid technological advancements are fundamentally changing the nature of our economy and the work that we do. To stay competitive and continue to create good jobs for our people, industries have to restructure, business models must adapt, and Singaporeans need to acquire new skills," he said.

This was his message to the 651 adult graduands from Singapore Polytechnic's (SP) Continuing Education and Training Centre (CET) programmes on Thursday.

"We are setting up a CET programme at SP to ensure that our students are ready to stay competitive and continue to create good jobs for our people, " Mr Iswaran said.

He added that it is "very important for professionals to adopt a continuous learning mindset and to stay relevant to changing needs of the industry."

Mr Iswaran added that it is "very important for professionals to adopt a continuous learning mindset and to stay relevant to changing needs of the industry."

Mr Iswaran said: "The basic issue that we face today is not an insufficiency of jobs, we are creating ample jobs, the challenge is really in the mismatch of skills and how we can bridge that.

"He said technological developments have changed the nature of Singapore's economy and the jobs that are created. These jobs require a new set of skills and proiciencies, and a willingness by the workforce to acquire them to meet the changing needs of the industry.

"Mr Iswaran added that it is "very important for professionals to adopt a continuous learning mindset and to stay relevant to changing needs of the industry."

Mr Iswaran encouraged workers, government agencies and educational institutions, to work together to create a "comprehensive eco-system for the continuous development of skills".

Citing the successful collaboration between SP Professional and Adult Continuing Education (Pace) Academy, Workforce Singapore, SkillsFuture Singapore and the industry to promote the development of a skilled and future-ready workforce, Mr Iswaran encouraged more of such partnerships.

"Individuals like Mr Sheikh Harun Mohammad Rafik, 36, who made a mid-career switch and sought relevant upskilling, were commended by Mr Iswaran.

"Despite having a master's in sports science, Mr Sheikh Harun, who was a national silat coach, moved into the maritime and offshore industry as he had an interest in it and had relevant experience working in the industry. Last year, he pursued a Diploma (Conversion) in Shipping and Marine Offshore, hoping to gain more knowledge and interact with people from the industry. He is now a technical and operations executive with a maritime firm.

"I have always believed in continuous learning and having this diploma gives me more confidence," he said. "It shows my bosses that I'm very serious about this industry and hopefully will be able to pick up more skills soon."

ANG TIAN TIAN

On the day of her final-term test last year, Madam Lina Afiqah Mohd Nor, 29, went into labour.

"The technical support officer, who is pursuing a part-time diploma at Singapore Polytechnic's (SP) Professional and Adult Continuing Education (Pace) Academy, said: "I couldn't stop thinking about the test while giving birth. I was so worried I was going to fail the module."

Madam Lina Afiqah Mohd Nor.

Madam Lina's fears were unfounded as her lecturer arranged for her to take the test from home during confinement after she had her daughter.

Pace Academy offers adult education and training with more than 230 continuing education and training (CET) programmes. These include part-time diplomas, customised courses and short courses. The academy had 24,000 students last year.

SP will be setting up a CET programme for the first time during its Open House, which runs from tomorrow to Saturday, from 10am to 6pm.

For Madam Lina, who is in the final semester of her 2½-year industrial chemistry and life sciences diploma, the journey to getting an education has been far from smooth.

"I have always believed in continuous learning and having this diploma gives me more confidence," she said. "It shows my bosses that I'm very serious about this industry and hopefully will be able to pick up more skills soon."

When she was 21, she decided to return to ITE to pursue the same course. Said Madam Lina: "I realised I could not go far without a qualification. I wanted to give myself a second chance.

After graduating from ITE, she decided to work as she wanted to ease the financial burden of her parents, who have six children.

She enrolled in SP two years ago under the CET programme and has night classes after work. Said Madam Lina: "It hasn't been easy juggling school and work, but I am to determined to complete this diploma to open more doors for (myself)."
With SP, it’s So Possible

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Poly graduate works part-time to support family

Article featured SP Diploma in Accountancy graduate, Angelique Phung and her tough journey to graduation. When she was in secondary two, her father was diagnosed with stomach cancer and could not work. Her family lost their main source of income and Angelique took up part-time jobs during the school holidays to lessen her family’s financial burden. She worked as an assistant tutor in a tuition centre and earned only $600 per month. Angelique’s father unfortunately lost the battle to stomach cancer when she was 16 years old. Because of this event, Angelique decided to enrol in SP’s Diploma in Accountancy because of the accountancy industry’s flexible nature. It allowed her to work and study at the same time, without giving up her dream to become a certified Accountant. Life without her father was not easy - her mother triggered an old spinal injury due to a fall last September and had to travel to and fro between the hospital and home often. Angelique had to juggle studies, bringing her mother for hospital visits and working part-time.

Now that she has graduated, Angelique will be working as an Auditor with Deloitte. Currently, she is pursuing her ICAEW Professional Chartered Accountancy certification through SP’s Professional & Adult Continuing Education (PACE) Academy.

Poly graduate works part-time to support family

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Father’s death, mother’s illness

SP graduate half-time job for family

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With SP, it’s so possible

RETURNING TO POLY AT AGE 45

Returning to poly at age 45

The 26-week internship at Ingredion affirmed my decision to pursue the Advanced Diploma in Food Science.

WHAT OPPORTUNITIES HAS THE ELP GIVEN TO YOU SO FAR?

My internship at Ingredion Singapore saw me assisting technologists in the encapsulation technologies for a wide range of beverages and dry-life projects for clients, an opportunity I didn’t have in polytechnic.

Today, I work in the company’s bakery department as a food technologist, which is quite different from what I used to do — now I have primary responsibility for developing innovative concepts to help our customers stay on trend to appeal to today’s consumers. The experience from working in various departments has widened my exposure and knowledge in the food sector, which is always helpful.

WHAT ARE YOUR FUTURE PLANS AFTER THE ELP?

On graduation from the ELP, I will receive three different certificates — the Certificate in Food Product Innovation, the Certificate in Food Processing, and the Certificate in Food Safety and Quality Management. These should help me secure a position as a researcher in the food R&D sector. Our lab has been testing new recipes that have been developed by our team.

Upon graduation from the ELP, Ms Chee Pei Yi hopes to become a researcher in the food R&D sector. PHOTO: CHONG JUN LIANG
With SP, it’s So Possible

The development of a new training and education program for humanitarian aid has been launched. The program will provide courses to help people understand how relief organizations operate and gain basic architectural knowledge, such as building shelters. The program is expected to begin in May of next year. It will consist of three to four units and take one to one-and-a-half years to complete.

The Singapore Red Cross and SP Polytechnic have signed a memorandum of understanding to establish this program. Mr. Tneoh Yunn Chung, 46, graduated with his son from SP after enrolling in 2013. Mr. Tneoh, who was the oldest student in his class, said: “My age was never a concern to me. Not only did I want to stay relevant in the industry, I also wanted to lead by example for my sons.”

The father of two boys, aged 18 and 21, said his poor computer skills was the main obstacle he faced going back to school. Thankfully, he had the help of his elder son, Mr. Tneoh Yuan Chen, who taught him how to use the relevant software.

Mr. Tneoh, who was pursuing a full-time diploma at SP then, said: “Seeing my dad so motivated and driven inspired me to work harder in school.” Juggling studies and work was tiring for the older Mr. Tneoh, who would wake up at 6am to go to work and reach home at 11pm after night classes.

He also spent his weekends doing revision work and projects, graduating with a grade point average of 3.5 and receiving a job promotion shortly after. He said: “I was determined to do well to show my sons that if I could do it, so could they.”

The Singapore Red Cross and SP Polytechnic has collaborated to provide a Diploma-Plus Certificate Programme in Humanitarian Affairs for students who are interested in humanitarian work.

Mr. Tneoh Yunn Chung with son Yuan Chen. Photo: Courtesy of Tneoh Yunn Chung
Sunny outlook for solar panel recycling

The use of solar photovoltaic panels in response to climate change is growing exponentially, with some 400 million PV panels already installed worldwide. But they do not last forever and ultimately end up at landfills, where toxic materials from them leach into the ground water, posing a danger to the environment.

Other than in Europe, there are currently no legal obligations on PV companies to recycle their solar panels, which typically have a lifespan of 20 to 25 years.

To tackle this environmental challenge, researchers from Singapore Polytechnic (SP) have unveiled a new, quick and greener – method of recycling solar panels, SP research scientist Thong Ya Xuan said this week.

She said: “The effects of the waste would be hitting us in a few years’ time. By setting up this pilot plant, we would be able to start recycling the panels and not be overwhelmed when the waste comes.”

If we’re able to start this now in Singapore, we’ll be able to catch the wave when all the panels that were installed in Singapore reach their end of life or when they are disposed of.”

Dr Thong said current methods recycle just some of the panel’s components, while discarding parts such as silver, aluminium and the silicon wafer, leading to only a 50 per cent recovery from the panel.

However, she added that not only can SP’s method recover almost all of the individual components, the chemicals it uses to extract silver, aluminium and silicon from the panels are also non-toxic and reusable for several rounds of extraction.

Apart from the fabrication of new solar panels from recycled silicon wafers, the recovered materials can then be recycled into other products. For example, extracted silver can be made into electrical paste for the electrical industry, and extracted aluminium can be made into coagulants used in industrial wastewater treatment.

Dr Thong points out, also means that the Earth’s resources are not depleted and the disposal of heavy metals such as silver into the environment is reduced.

Dr Thong Ya Xuan with a model of a solar panel recycling plant. She says the Singapore Polytechnic team’s method can recover almost all of a solar panel’s materials. ST PHOTO: KHALID BABA
Youngest lab head among NHG’s Young Achiever Award winners

CHARMAINE SOH

At 30, Ms Serene Kho became the youngest leader of laboratory at National Healthcare Group Diagnostics (NHGD) two years ago.

Ms Kho, who oversees a team of 25, all older than her, told The New Paper yesterday: “Initially, I felt worried and it was challenging, especially in terms of earning the seniors’ trust and respect. It took time, but the effort is worth it, especially with such a great team now.”

For her work at NHGD, she was given an NHG Young Achiever Award with nine others yesterday.

Ms Kho did an internship stint at NHG while studying biomedicine and science at Singapore Polytechnic, and joined as a junior medical technician in May 2005.

Under her leadership, NHGD’s laboratories initiated more efficient and convenient services for both patients and caregivers.

Last August, Ms Kho set up the Home Phlebotomy team, which visits wheelchair- and bed-bound patients to draw blood for laboratory tests.

The medical technologist also meets patients and interacts with them.

She said: “Especially for regular patients, we build a bond when we chat and share our life stories.”

Being able to contribute to society gives her job meaning, and she sees herself staying in healthcare for years to come.

Under Ms Serene Kho’s leadership, NHGD’s labs initiated more efficient and convenient services.

PHOTO: NHG

Summary of Malay article

Parents Support Enabled His Success

SP’s Diploma in Mechanical Engineering graduate Muhammad Khairul Anwar Jamil recently graduated from NUS. Khairul scored poorly in his A levels and went on to complete his National Service (NS). After NS, Khairul found it difficult to get a job, and this led him to SP. Due to his excellent results at SP, Khairul was chosen as the valedictorian during his poly graduation and expressed his gratitude towards his encouraging and understanding parents.
From a PSLE score of 181 to NUS Medicine

Tan Jun Xiang, 22, has had an interesting life trajectory, going from a 181-point scorer in the PSLE to medical student at the National University of Singapore. In the second of a new series on inspiring millennials, he tells The Straits Times that young people should not give up on their dreams.

Theresa Tan
Mr Tan Jun Xiang, 22, is not your typical medical student who ace all his school examinations. In fact, he scored only 181 points in the PSLE and had to go into the five-year Normal stream in secondary school.

So the polytechnic graduate, who made it to the prestigious medical faculty at the National University of Singapore (NUS) in among the rare few who did for the second year, was no mean achievement.

When he was younger, he never thought he would go to university - much less the highly competitive Yong Loo Lin School of Medicine at NUS, where only about one in seven applicants get in, so what sparked his stunning academic turnaround?

A few things stood out. He found the process of getting into the secondary school of his choice, and discovering that he could indeed do well if he put his mind to it.

The eldest of three children, Mr Tan was a forthright pupil at Anderson Primary School who never scored an A. He was more interested in playing on his Game Boy, a hand-held video gaming device.

"I am a very playful person and studying was not my thing," he said.

"I only flipped through my textbook a day before my PSLE." He was unimpressed by his poor score until he saw how much it disappointed his parents, a sales manager and an aviation security officer.

He was also posted to a school that was not of his choice. But Ang Mo Kio Secondary gave him a chance after his parents appealed for a place there. It was the school to which he had wanted to go and their acceptance marked the start of his path to academic success.

"I did not want to waste the chance I had been given. It was precious," he said.

So the Normal (Academic) student started to pay attention in class. He was diligent about homework and asked his teachers about material he did not understand.

He tried hard because he wanted to get into the school's through-train programme, which allowed him to take the O levels in Secondary 3, instead of the N levels in Sec 4 and the O levels a year later.

"Mr Tan said, "My teachers did not trust us like lower Normal (Academic) students, but pushed us to do our best." He graduated at the top of the school cohort, scoring nine points for his O levels.

That gained him a place in the "highly competitive" biomedical research faculty of Singapore Polytechnic.

An SP spokesman said biomedical science is one of the most popular courses.

While pursuing his diploma, he realised through an internship at a hospital that he was fascinated by the human body and intrigued by the multitude of diseases.

He enjoyed talking to people and also wanted to understand patients' concerns and fears. He realised that he wanted to be a doctor.

It was a lofty goal, considering that about 2,000 top students fight for 360 places at the NUS medical school each year. But he applied anyway and was accepted last year.

"It was beyond my wildest dreams to get in," he said. "My father booked train tickets at a restaurant and invited my relatives to celebrate."

Mr Tan, who is in the second year of a five-year degree course, was initially apprehensive that he would have nothing in common with the other students, who were from top schools or more privileged backgrounds.

His dad's highest qualification is an O-level certificate, while his mum has A-Levels.

But he need not have worried, he found that he was able to make friends.

Associate Professor S.T. Oon, the school's head of the department of anatomy, taught Mr Tan and praised his academic performance as "very good."

Prof Oon said: "He was respectful, attentive and showed a positive attitude in his studies. I am sure he will continue to excel in his studies and become a role model for the aspiring younger generation."

Mr Tan said: "Everyone was very surprised that my PSLE score was only 181 points and they were impressed by how I made it to medicine."

"I tell others, Don't give up, just aim high and don't compare yourself to others. You will never know what may happen."

theresat@sph.com.sg
Young rebel now graduating with top honours

Encik Abdul Rahmad Abdul Razak was a rebellious teenager. He often got into fights, talked back to teachers and mingled with bad company. Sporting shoulder-length hair and beards, Mr Rhadiq had his hair on the verge of going down the drain.

But his concern for his mother, who had money health issues, but didn’t dare to show it in the family’s formal trend, made him pull back from the path.

While he was in the Institute of Technical Education (ITE), he decided to turn over a new leaf and work on his studies.

Today, Mr Tan, 36, graduated from Nanyang Technological University (NTU) (High Distinction) degree in electrical and electronic engineering.

After completing his full-time national service, he went on to pursue his studies with caring for his mother, who was sole breadwinner.

Mr Rhadiq graduated with a diploma while he was in ITE, he really started working hard and putting in effort.

He had a strong passion for shipping as it is dynamic and exciting as compared to business. Mr Rhadiq opined that the maritime industry is relevant in Singapore due to her position as a global trade hub.

THE STRAITS TIMES | 30 JULY 2018

BERITA MINGGU | 02 SEPTEMBER 2018

JANTUNG Encik Abdul Rahmad Abdul Razak, yang bercita-cita melangkah jauh dalam kerjaya, terus melihat adanya potensi dalam industri kelautan pada masa depan. – Foto BM oleh IQBAL FAIZAL

Enthusiast of the maritime industry, Mr Rhadiq has been working on his studies with caring for his mother, who is a sole breadwinner. He is passionate about shipping as it is dynamic and exciting compared to business.

Mr Rhadiq graduated with a diploma while he was in ITE, and he really started working hard and putting in effort.

He has a strong passion for shipping as it is dynamic and exciting compared to business. Mr Rhadiq opined that the maritime industry is relevant in Singapore due to her position as a global trade hub.

A ship captain is still a relevant job in Singapore

A ship captain is still a relevant job in Singapore with SP

With SP, it’s so possible

Isabelle Liew

In his teenage years, he was a troublemaker who got into fights, talked back to teachers and mingled with bad company. Sporting shoulder-length hair and beards, Mr Rhadiq had his hair on the verge of going down the drain.

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He has a strong passion for shipping as it is dynamic and exciting compared to business. Mr Rhadiq opined that the maritime industry is relevant in Singapore due to her position as a global trade hub.
Her job not only requires her to work 10 hours daily in a 40 deg C room, but also live away from home for six consecutive months. Miss Tan Huixian, 24, finds herself the only female seafarer on most ships too, but her job is a “childhood dream come true”.

The 4th engineer at homegrown shipping line Pacific International Lines told The New Paper: “I have always loved hands-on work since I was young, and I excelled in physics and maths.”

Miss Tan, who graduated with a diploma in marine engineering from Singapore Polytechnic, works seven days a week for six months straight. While she has not encountered any major accidents, she had some near misses.

“There was once when my colleague accidentally let go of something heavy, and it swung downwards, nearly hitting me. But I managed to move aside in time.”

During her breaks, she travels, plays drums and watches Korean dramas and anime. Her job has brought her to places such as India, China and South Africa. Her favourite pit stop is Wellington, New Zealand.

While Miss Tan agreed that women have the potential to go far and break new grounds in engineering and other STEM industries, she cautioned that her job is not for everyone.

She works non-stop for six months
Selling Kwave abroad

S’pore Poly students reap rewards from taking Korean beauty brands to Myanmar

AMELIA TENG
Education Correspondent

You would not expect three young men to make a name for themselves in business overseas by knowing what consumers want to make themselves look and feel good.

Riding on the growing interest in beauty and personal care in Myanmar, polytechnic students Aung Shin Khant, Pua Seng Oon and James Ang set up shop in the country’s second-largest city, Mandalay, selling Korean skincare products.

The 21-year-old business administration students in their third year at Singapore Polytechnic (SP) made more than $20,000 in just a week of their store’s official opening last month. They even made a profit on the first day of its launch.

They are believed to be the first SP students to have set up a successful business overseas.

The idea for their business, which they named Keeo or “care” in Korean, came from an entrepreneurship module they took in April last year. Each of them contributed to the initial start-up cost of $6,000.

After conducting market research, the team realised there was strong demand for Korean beauty products among Myanmar consumers, especially with rising affluence and the growing popularity of Korean dramas and celebrities.

It helped to have in the team Mr Aung, who is from Myanmar and knows the market there.

Mr Aung, whose family lives in Mandalay and parents are business owners, said: “As some people there reach a certain status, they want to look good and presentable.

“Many friends and relatives ask me to order skincare products from Innisfree and Laneige and bring them back during my holidays. Some are even willing to fly to Singapore or South Korea to buy such products, he said.

But many Myanmar citizens are not able to travel out of the country due to strict travel restrictions, he added.

His mother helped the group to link up with business owners and friends to find out their needs and preferences.

Keeo now carries items from four main Korean brands targeted at different segments of the population. It has products from Innisfree, which is popular among young adults and teenagers; Laneige, which is targeted at older people; Medicube, which specialises in acne treatment; and Pyunkang Yul, which makes organic products.

It also brings in products based on pre-orders and customer requests, such as sunblock for golfers.

Their lecturer and mentor, Ms Raine Anastasia Chin, connected them with Korean suppliers for their stocks.

Ms Chin, 34, who has also used Korean skincare products, has visited the country twice a year with friends in the past few years.

They would stock up on their personal supplies so often that they got in touch with suppliers and could buy products like sheet masks at wholesale prices.

Mr Ang said: “We knew of the demand from Myanmar and we had the contacts of the suppliers, so we were the matchmakers in a sense.”

They are currently working to secure distributor rights for the four brands to the Myanmar market.

From June last year to the opening of their store last month, the trio have worked hard, juggling project submissions and examinations, to launch the business.

They have made several trips to Myanmar to oversee the shop’s renovation. They have also hired a manager, a salesman and an accountant to manage the store.

The outlet is about 500 sq ft and located in a cluster of shophouses frequented by locals.

Fuelled by their success, the three have plans to expand the business to an outlet serving bingsu, a Korean shaved ice dessert, next to their Keeo store.

Mr Pua said: “Entrepreneurship is pretty tiring, but it’s a journey that we got through. We learnt to manage our time well, doing work and meeting after school hours.”

The group also split the load, with Mr Pua handling financial planning and scheduling, Mr Aung taking charge of operations and Mr Ang overseeing marketing strategies.

The trio, who will graduate next year, have also been able to relate what they have learnt in school to their business.

For example, skills in digital marketing, budgeting and start-up financing have come in handy, they said.

Mr Pua, who is also a freelance photographer, said the school provided a good foundation in the areas of economics, business and accounting from their first year.

Mr Ang, whose father is Singaporean and mother is half-Cambodian and half-Vietnamese, “I want to be an entrepreneur like my dad, who was in the import and export sector. He took risks in the past when no one did.”

Third-year business administration students (from left) James Ang, Aung Shin Khant and Pua Seng Oon set up a shop in Myanmar selling skincare products by Korean brands. Their store made more than $20,000 in just a week of its official opening last month. ST PHOTO: KELVIN CHNG

Entrepreneurship is pretty tiring, but it’s a journey that we got through. We learnt to manage our time well, doing work and meeting after school hours.

— MR PUA SENG OON

The idea to set up the shop in Mandalay, called Keeo or “care” in Korean, came from an entrepreneurship module the three Singapore Polytechnic students took in April last year. PHOTO: SINGAPORE POLYTECHNIC
Eight receive top award for teachers

AMELIA TENG
Education Correspondent

From conducting classes in the style of reality TV show MasterChef and creating elaborate games, to helping students find an emotional link with science, eight educators won recognition – and the President's Award for Teachers – yesterday for commitment to their craft.

The teachers, who were chosen from 2,500 individuals nominated by school leaders, teachers, parents and students, received the award from President Halimah Yacob at the Istana.

The recipients were recognised for their commitment to developing students, their creative ways of teaching and being mentors to their colleagues.

They are: Ms Goh Wei Leng from Geylang Methodist (Primary), Madam S. Nirmala Devi from Guangyang Primary, Mr Matthew Ong from St Andrew's Junior School, Ms Ng Sheh Feng from Ahmad Ibrahim Secondary, Mr Edzra Iskandar from Bedok South Secondary, Dr Lim Yi-En from National Junior College, Mr George Teo from Singapore Polytechnic and Ms Tan Lay Khee from Temasek Polytechnic.

Mr Ong has designed and used more than 10 games in his classes over the years. His latest game, The Revenge Of The LetterPillar, is a world that unfolds over weeks.

In it, his Primary 6 pupils at St Andrew’s Junior School are word detectives assigned and their unique ability to capture facts.

Mr Teo, 52, the course chair in business innovation and design at Singapore Polytechnic, turns his tutorials into a game show, where students receive envelopes with mystery tasks and race to answer questions.

“I enjoy the laughter and energy in class,” said Mr Teo, who quit the corporate world to join Singapore Polytechnic in 2000.

“My friends laughed at me and thought I wouldn’t last beyond three months as an educator because I am an impatient person,” he added. “But I have changed a lot. I am more patient, I see things from different perspectives, and I also learn from my students.”

ateng@sph.com.sg

University scholarships for SP graduates

Over the years, many SP graduates have been awarded prestigious bond-free scholarships from the local universities to pursue degree programmes. This is in addition to the scholarships awarded by ministries, companies, and organisations that you read about in this issue of SP News. Here are some of them:

Kirstin Yip Su Jun
Diploma in Creative Writing for TV & New Media
Awarded the Public Service Commission Scholarship

Hardy Chan Shin Nyee
Diploma in Information Technology
Awarded the SAP MENT Scholarship

Wong Ching Yee Cheklin
Diploma in Perfumery and Cosmetic Science
Awarded the A*STAR Scholarship

Glendon Thiai Yong Neng
Diploma in Aeronautical Engineering
Awarded the Nanyang Technological University (NTU)’s Renaissance Engineering Programme Scholarship

Christel Zhuang Lee Er
Diploma in Maritime Business
Awarded the MaritimeONE Scholarship

Liang Yu Bin
Diploma in Aeronautical Engineering
Awarded the Land Transport Authority Scholarship

Shannon Teoh
Diploma in Experience and Communication Design
Awarded the DesignSingapore Scholarship

Lau Aik Meng
Diploma in Optometry
Awarded the Nanyang President’s Graduate Scholarship

Recipients of the President’s Award for Teachers 2018. (From left) Ms Ng Sheh Feng, 36, from Ahmad Ibrahim Secondary; Mr Matthew Ong, 38, from St Andrew’s Junior School; Mr Goh Wei Leng, 41, from Geylang Methodist (Primary); Mr George Teo, 52, from Singapore Polytechnic; Ms Tan Lay Khee, 35, from Temasek Polytechnic; Madam S. Nirmala Devi, 34, from Guangyang Primary; Dr Lim Yi-En, 45, from National Junior College; and Mr Edzra Iskandar, 48, from Bedok South Secondary. ST PHOTO: GAVIN FOO
With SP, it’s so possible

She feels lucky to have received guidance from mentors

Summary of Malay article

Malay article

Cik Noor Izzaty Ishak (memegang mikrofon) mengalu-alukan langkah SP dalam melancarkan program latihan berstruktur, walaupun beliau sudah tamat pengajian enam tahun lalu. Beliau sering bekerjasama dengan para beliau, dan mendekati mereka melalui sesi drama. – Foto ihsan NOOR IZZATY ISHAK

BERITA HARIAN | 03 APRIL 2017

Rasa beruntung dapat banyak bimbingan mentor

WALAUAPUN sudah tamat pengajian di Politeknik Singapura (SP) enam tahun lalu, Cik Noor Izzaty Ishak mengaku tetap membelah langkah dalam mempersiapkan program latihan kerjasama bagi pelajar Diplomatik Sarjana dalam Psikologi dan Drama Gunakan (DADP).

Cik Izzaty merupakan antara pelajar kumpulan pertama yang mengambil DADP di SP semasa ia mula diperkenal waktu itu.

“Walaupun saya merasa beruntung kerana saya memiliki banyak bimbingan saya. Namun, ada di antaranya rakan-rakan saya yang tidak mendapat bimbingan sekalipun, oleh itu, latihan belajar ini mungkin kurang efektif,” ujar Cik Izzaty, yang kini bekerja di Beyond Social Services, salah seorang agensi yang terlibat dalam mempersiapkan program kerjasama.

Untuk memastikan pelajar dapat memahami dan memahami sesuatu yang diberikan, Cik Izzaty sering berbincang dengan para pelajar pelatih, dan membantu mereka mempersiapkan diri menghadapi dunia kerja.

Cik Izzaty menambah bahawa pelajar belajar banyak dari pelajar pelatih dalam menangani masalah sosial, dan dengan bimbingan tersebut, pelajar mendapat banyak bantuan dalam menyelesaikan masalah sosial.

Pelajar juga mendapat peluang untuk belajar lebih banyak dari pelajar pelatih yang telah mempunyai banyak pengalaman dalam bidang sosial.

Cik Izzaty menambah bahawa pelajar belajar banyak dari pelajar pelatih, dan dengan bimbingan tersebut, pelajar mendapat banyak bantuan dalam menyelesaikan masalah sosial.

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Cik Izzaty menambah bahawa pelajar belajar many
SP grads give back through drama and social work

JONATHAN LEE

Miss Jasmine Chew, 20, was so keen on pursuing a diploma in applied drama and psychology (DADP) in Singapore Polytechnic that she kept her application a secret from her parents.

“My parents were against me going into DADP because they wanted me to go to a business course. But my love for people and volunteering convinced me to apply for this course,” she told The New Paper.

Last Friday, Miss Chew graduated with 40 others from her course, which integrates the tools of drama with an under-standing of psychology.

Final-year students run applied drama programmes as part of their final-year project. They must also complete internships with welfare organisations.

Tech solutions to help Parkinson’s disease patients and the elderly

S’pore Poly duo win contest with their robot that aims to stimulate minds of senior citizens

JOLENE ANG

Polytechnic student Heng Yin Qi knew what Parkinson’s disease can do to a person, having watched a aunt struggle with simple tasks.

“I could see her struggling with drinking water or writing because her hands were shaking,” said the 18-year-old first-year aerospace electronics student at Singapore Polytechnic (SP).

So when she and course-mate Lee Wei Jun, 22, entered the Samsung Solve for Tomorrow competition, her aunt’s experience provided the inspiration for their entry.

The competition encourages students to use technology to come up with innovative solutions to social issues in their community.

The two students came up with Shaky, a device that can be attached to objects such as utensils, plates and cups to monitor tremors. The device can counter the tremors and stabilise the objects.

Of the 153 entries in the Samsung Electronics Singapore category, theirs was among the 10 shortlisted submissions. Five of the teams were picked as winners last Friday.

Though the device did not make it to the top five, Mr Lee said: “We were glad we could solve a problem that someone close to us was facing... It hit quite close to home.”

The two of them have plans to develop the device further and explore it as a solution to turbulence on an aircraft.

Two other students from SP won for their submission – an interactive therapeutic pet robot they named SP Buddy.

Electrical and electronic engineering students Mohamed Umar, 19, and Wong Jun Heng, 20, tapped an idea from their seniors but added their own improvements, such as new games and enhancements to its in-built speakers and sensors.

The robotic dog aims to get the elderly to think and move around more. For example, one game requires the user to choose a tile that completes a random mahjong sequence. If the right tile is selected, the dog will nod its “head” and let out an encouraging “bark.”

The duo, whose entry won, heard about the competition barely three weeks before the Oct 21 deadline.

Mr Sia said: “When we decided to join the competition, we had only 19 days to work. But it’s all about the experience – it was a once in a lifetime chance for us.”

Mr Tan plans to go into social work full-time.

“I had always wondered how I could benefit others using my love for drama,” he said.

“Now I have found a space where I enjoy doing what I love while giving back.”

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