

Taking Asian Food a Step Further

The culinary development of Asian food received a big boost with the official opening of the Asian Culinary Institute (ACI) on 15 June 2016. The 19,000 sqm facility, located on the third floor of Lifelong Learning Institute in Paya Lebar, will play a critical role in implementing the Food Services Sectoral Manpower Plan, which was launched in late May 2016, to build a deeply-skilled Singaporean core in Food Services.

ACI, a continuing education and training institute under Nanyang Polytechnic, is conceptualised and designed around five guiding principles of tradition, heritage, efficiency, productivity and innovation. From the blend of colours (based on the five Chinese elements - metal, wood, water, fire and earth - collectively known as the Wu Xing of the Chinese zodiac), building materials to its artefacts, ACI's interior is specially crafted to reflect our Asian tradition and heritage. The state-of-the-art kitchens in ACI incorporate new technologies that are designed to help food and beverage (F&B) improve on their efficiency and productivity.

At the opening ceremony, it was revealed that ACI has signed 11 Memorandum of Understandings (MOUs) with F&B and hospitality organisations such as Singapore Marriot Tang Plaza Hotel, Select Group, Jumbo Group and Sakae Holdings, among others, to attract and recruit new entrants into the F&B industry. The areas of collaboration include a five-year term plan which will see the sponsorship of training programmes for new entrants and existing workers, provision of work attachments and mentoring for ACI trainees, as well as chef demonstrations to generate publicity and awareness for Asian cuisines.

In a separate MOU between ACI and the Japan Food Town Development, both parties will jointly develop a Japanese Cuisine curriculum, enabling local chefs to undergo a train-the-trainer programme under the tutelage of a master chef from Japan. The curriculum will be ready by the end of the year.

The setting up of a Distinguished Chefs Advisory Panel was also announced at the opening. It will advise ACI on the programme curriculum as well as industry trends and needs. This panel comprises eight reputable local and foreign chefs: Christophe Megel, Violet Oon, Eric Neo, Frédéric Deshayes, Justin Quek, Yong Bing Ngen, Bruno Menard and Hiroshi Ishii. The panel held its first meeting in July 2016 where they were introduced to ACI's programmes and events as well as the Sectoral Manpower Plan for Food Services.

Together, ACI and the Singapore Workforce Development Authority (WDA) launched the SkillsFuture Earn and Learn Programme for this sector in 2015. Fresh graduates from the relevant polytechnic and Institute of Technical Education courses can get a head-start in the F&B sector via a 15-month programme that would provide opportunities to develop industry relevant skills and knowledge.

The launch of ACI complements the government's SkillsFuture initiative to groom a sustainable pool of talent for all sectors, including the food services industry.



At the opening of ACI (from left): Chief Executive of WDA Mr Ng Cher Pong; Principal & CEO of NYP, Ms Jeanne Liew, Japan's Ambassador to Singapore, Mr Kenji Shinoda; Guest-of-Honour Parliamentary Secretary at the Ministry of Education and Ministry of Trade & Industry, Ms Low Yen Ling; and Japanese Masterchef, Chef Nanmoku.

Expert Sharing In Masterclasses

To date, ACI has conducted two masterclasses.

The first was in June 2016 where ACI partnered Electrolux S.E.A. Pte Ltd to conduct a masterclass on the latest cook chill technologies. It was attended by members from the Association of Catering Professionals (ACAPS), which consists of about 100 F&B catering establishments.

The masterclass provided participants with a good understanding and knowledge of the latest cooking technologies such as Cook Chill and Sous Vide cooking. Participants were shown how these technologies could help caterers reduce food wastage, increase productivity, achieve higher levels of food safety and generate higher profitability.

Electrolux's Application Chef Daniel Schneider who has more than 14 years of culinary experience in Singapore as well as his homeland, Germany, conducted the training.



Chef Daniel Schneider, an Application Chef at Electrolux Professional SEA (extreme right) showing off his culinary skills to Mr Tan Jek Min, Director of ACI and Ms Low Yen Ling, Parliamentary Secretary, Ministry of Education & Ministry of Trade and Industry, at ACI's opening.

The second masterclass on "Adoption of Future Culinary Trends" was held in August 2016. It was conducted with the Restaurant Association of Singapore by ACI's Chef Adrian Fun, a member of the Singapore National Culinary Team who won the Silver Medal (individual) at the Gourmet Team Challenge and second runner-up position at the overall team challenge at the Food & Hotel Asia Gourmet Team Challenge this year.

To support business transformation in the food and beverage industry, ACI showcased how a modern induction kitchen, which is cleaner, safer and cooler, can be created. Due to regulatory requirements, more professional chefs are now turning to induction technology in commercial kitchens.

Chef Adrian demonstrated the capabilities of induction technology through popular dishes like crab meat fried rice, stir fried salted egg prawn and seafood soup. The experiential session left 40 business owners and industry chefs in awe, debunking the myth that induction is not suitable for Asian cuisine.



Masterclass on "Adoption of Future Culinary Trends" conducted by chef Adrian Fun.



Building a Skilled Workforce for Food Sector

Earn and Learn with ACI

Students under the SkillsFuture Earn and Learn Programme (ELP) run by ACI met with the Minister for Trade and Industry (Industry), S. Iswaran, during the launch of the Food Service Sectoral Manpower Plan in May 2016.

The five-year plan was developed by Spring Singapore and WDA together with industry stakeholders and unions. It outlines three key strategies: covering job redesign using technology, building a future-ready Singapore core, and strengthening companies' human resource capabilities to develop and maintain a quality workforce.

Twin sisters Lee Mei Jin and Lee Mei Yu who graduated from Nanyang Polytechnic's Diploma in Food & Beverage

Business, are among the first batch of trainees under the ELP. They were attached to Breadtalk Group since July last year where they were given opportunities to be rotated and trained in different departments. In the process, they learned more about product lines and value chains of the bakery-making processes. They also learned about procurement, warehousing, logistics, as well as restaurant operations in different outlets and retail business formats in addition to exposure on the use of different machines, equipment and technology for research and development.

The twins also gained some international exposure when the company sent them for a short attachment to its Shanghai's operations.

ACI in tandem with SkillsFuture



Sixty-six year old Mr Shum San Wah (left photo) has been working in the IT sector for the past 30 years. Two years ago, he decided to leave his job to pursue his passion in cooking and started part-time work in the F&B sector. To date, he has completed a WSO Certificate, Higher Certificate and Advanced Certificate in Culinary Arts (Asian Cuisine) at ACI, using his SkillsFuture credit to partially offset his course fees. The training boosted his confidence and skills in his part-time work. He is now given more opportunities to work in the different restaurants within his company. Recently, he started on his Diploma in Culinary Arts (Asian Cuisine) course.



Like Mr Shum, many Singaporeans have also tapped on their SkillsFuture Credit to enrol at ACI's short courses to pick up new skills or develop themselves further.

Ms Clarine Lin (right photo) is another good example. The 30 year-old housewife with three young children has now re-joined the workforce as a part-time pastry cook with the Grand Park City Hall Hotel after completing her Certificate in Culinary Arts (Asian Cuisine) at ACI. While the hotel was undergoing renovation, she upgraded herself further by taking up the Certificate in Asian Pastry and Bakery Course at ACI.

Place and Learn with ACI

At the official opening of Kitchen Solutions Pte Ltd, a central kitchen facility owned by Indian restaurateurs under the Indian Restaurants Association Singapore, Minister for Manpower Lim Swee Say met with ACI's trainees under the Place-and-Train (PnT) programme. ACI plays an instrumental role in the transformation of the Indian restaurants sector with the launch of the PnT programme to attract and groom local chefs for

the Food Services sector. These trainees are placed with Indian restaurants, undergo skills-based training at ACI and structured on-the-job training that leads to an industry-recognised certification, coupled with a well-structured career development pathway. Aged between 21 to 53 years old, the trainees previously came from non-F&B sectors such as security and cleaning services.



◀ Manpower Minister Lim Swee Say, Minister of State for Manpower Teo Ser Luck, and Parliamentary Secretary for Education & Trade and Industry Low Yen Ling meeting ACI's Place and Train trainees.

Boosting Industrial Productivity with NYP Solutions



Robotic Socket Handling System

The School of Engineering (SEG) recently collaborated with two key industry partners to develop advanced technologies that will boost manufacturing productivity through robotics and automation solutions.

It entered into a collaboration with Sanwa-Intec (Asia) Pte Ltd, a key player in the precision plastic injection moulding industry. SEG worked with Sanwa-Intec in 2015 to develop a robotic socket handling system that performs both the feeding of pre-tested moulded sockets to a tester unit and the retrieving of passed sockets from the unit.

The project started with SEG's recommendation of using a standardised platform to convey sockets in batches between machines. A trolley for automation was thus designed by SEG to work and convey 16 trays of 80 sockets (1,280 sockets per trolley) which can seamlessly convey between machines. This removes the previous approach of having an operator to move sockets tray by tray between machines. The trolley of 1,280 sockets will then be docked at the robotic socket handling system that transfers four pre-tested sockets at a time to the tester unit, and after which it transfers them to another docked empty trolley to receive the passed sockets.

The robotic system consists of a high speed four-axis SCARA robot that performs the transferring of sockets in and out from the tester unit at a cycle time of three

seconds per transfer. Operators will only need to reload another new trolley of 1,280 pre-tested sockets when all the sockets in the current trolley have been transferred to the tester unit. The operator will also only need to unload the trolley of passed sockets from our system and reload a new empty trolley to receive a new batch of passed sockets. As such, the robotic socket handling system is able to provide continuous operation with minimum involvement by an operator.

Previously, an operator was expected to perform the mundane work of feeding and retrieving the sockets manually from the tester unit. The innovation has since been successfully commissioned and put into production runs, effectively streamlining the company's processes and improving the company's overall manufacturing productivity.



The automated socket handling system designed by NYP.



Integration of Serial Communication Hub into Bunkering Monitoring System



Flow chart illustration of the new monitoring system solution.

Fuel represents a significant portion of a vessel's total operating cost in the shipping industry. The Centre of Innovation for Electronics and Internet of Things (COI-EIoT) in the School of Engineering partnered Ascenz Solutions Pte Ltd, a local company specialising in remote fuel consumption and bunkering monitoring systems, to design and develop a new instrumentation solution to enhance the fuel saving and efficiency management functions in their systems.

The COI-EIoT team designed and developed a unified serial communication hub that would help Ascenz improve on the reliability and accuracy of its fuel consumption and bunkering data acquisition process.

Here's how it works: The new hub would congregate data captured from the fuel flow meter sensors, vessel engine RPM gauge sensors and maritime GPS receivers of a moving ship. The existing bunkering monitoring system will then send these vital information in the hub to an onshore control office via a satellite link. With this new end-to-end Internet of Things (IoT) solution, shipping companies are able to gain real-time insights into vessels' operations and achieve a higher level of quality assurance for the shipping industry. The system has since been widely adopted by the shipping industry.

New Centre to Innovate Solutions for Smart Nation



From left: Mr Gary Lim (Senior Partners-in-Learning Director, Microsoft), Ms Tiffany Bloomquist (Director, Enterprise Services Lead, Microsoft), Mr Foo Jong Tong (Director Public Sector and Business Development, Microsoft), Ms Jessica Tan (General Manager, Microsoft), Ms Jeanne Liew (Principal & CEO, NYP), Mr Edward Ho (Deputy Principal (Development) NYP) and Mr Dennis Ang (Director SIT, NYP).

In support of Singapore's Smart Nation initiative, Nanyang Polytechnic (NYP) and Microsoft signed a Memorandum of Understanding (MOU) in June 2016 to set up the Smart Nation Innovation Centre (SNIC). The Centre will synergise capabilities and resources from both parties to develop talents in Smart Nation-related technologies. It will also create citizen-centric software solutions that are aligned with Smart Nation's vision. These solutions aim to address challenges faced by major cities, especially in the areas of urban density, ageing population, healthcare, mobility and energy sustainability.

SNIC will also serve as an innovation hub to collaborate with NYP's industry partners on projects, applied research and development, as well as conduct professional courses on Microsoft technologies and the Internet of Things (IoT).

The Centre will also serve as a multi-disciplinary hub that promotes vibrancy and cohesion. Students from various diplomas across different schools in NYP will be brought together to work on a diverse range of industry and in-house projects.

SNIC has identified several collaboration projects for development in the initial phase. These projects will involve NYP staff and students from the School of Information Technology (SIT), School of Engineering (SEG), School of Health Sciences (SHS) and the Smart Campus Programme Office (SCPO).

Project 1: Smart Security Patrol Monitoring System

This project capitalises on NYP's wireless access points as position beacons. Using signals from the beacons, the command centre can monitor the patrol guards' location online in real-time. The command centre will also be equipped with various types of event alerts, such as patrol route deviation, and guards who are stationary along patrol routes. The records of patrol routes are also stored for analytics. The project also aims to create a prototype to demonstrate the use of robots for security patrol, complementing human patrol guards. Project partners include SEG, Smart Campus Programme Office and PICO.

Project 2: Smart Office Analytics System

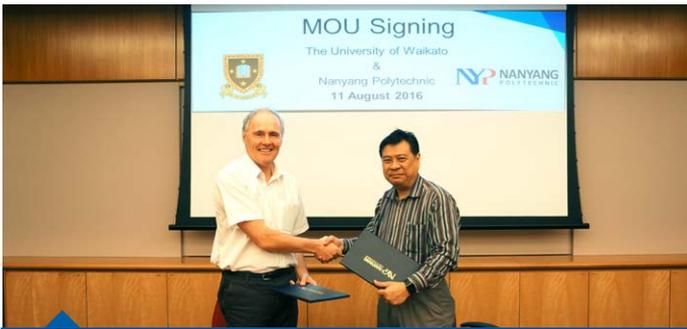
This project allows staff to book meeting rooms via multiple platforms such as mobile app, web app and Microsoft Outlook. Each meeting room is installed with Internet of Things sensors to monitor room occupancy and its environment parameters such as temperature, light luminance and occupancy status. The information system's analytics function will aggregate the sensor data and room booking information, using Microsoft Azure technology to provide valuable insights on the actual meeting room utilisation. With this system, usage of meeting rooms can be maximised, reducing scenarios such as users booking a meeting room but not turning up at the last minute or users booking a conference room for an hour but overrunning the booking duration. This will provide management with a better overview on the overall allocation of resources and therefore possibly save costs by converting under-utilised rooms into office space.

Developed by SIT in collaboration with S3 Innovate, the project will be deployed in the Defence Science & Technology Agency (DSTA).

Project 3: SilverTune

Music Therapy is an established health procedure where music is used to address physical, emotional, cognitive, and social needs of individuals. However, for patients who suffer from stroke or dementia, handling the delicate musical instruments is a challenge. Students from SIT and SHS are working on SilverTune, a smart Internet of Things musical device that can be transformed into multiple musical instruments such as the recorder and saxophone. It also includes a mobile app that will assist in performing music therapy anywhere, anytime. SilverTune can adapt to elderly patients' cognitive and physical disabilities to overcome the barriers of playing music. In addition, it improves the productivity of therapists by cutting down the time required to monitor elderly patients on-site. This system can also record data quantitatively to facilitate data analytics. Project partners include SIT, SHS, National University of Singapore, CUTE Centre, Khoo Teck Puat Hospital and AWWA, a non-profit organisation that provides help to communities with needs.

SIT Students Doing Research Projects in Germany and NZ



The MOU signing by Professor Geoff Holmes, Dean of Computing & Mathematical Sciences, University of Waikato and Dennis Ang, Director SIT, NYP.

The School of Information Technology (SIT) signed a Memorandum of Understanding (MOU) on 11 Aug 2016 with the University of Waikato (UW), a New Zealand government-supported research university, to allow Nanyang Polytechnic students to be attached to their Cyber Security Lab at the Faculty of Computing and Mathematical Sciences. Students will work with UW researchers on cyber security-related topics.

The School inked another MOU with the University of Applied Sciences in Germany where SIT students will get to work with the university on applied research in computing areas. In both agreements, all parties have pledged to pursue further collaborations beyond student attachments, including guest lectures by visiting faculty and collaborative projects.

These agreements are just the beginning of a renewed effort by SIT to provide students with a global outlook through immersive project works and internships in foreign countries. This is in line with the MOE's emphasis on enabling Singaporeans to be able to collaborate across cultures and be socially responsible. The Infocomm Development Authority is also placing emphasis on the borderless nature of work in the infocomm industry and the need to prepare Singapore students in this regard.

Four SIT students, two each from the Diploma in Information Security and Diploma in Business Intelligence and Analytics, have been shortlisted for the inaugural programmes with the two universities.

NYP graduates well employed in chemical sector

The Earn and Learn programmes (ELP) for various industry sectors is fast gaining steam among polytechnic graduates. At the launch of the ELP for the energy and chemicals sector in August, it was announced that 26 have signed up for it. Among them, 10 were Nanyang Polytechnic (NYP) graduates from the School of Chemical & Life Sciences' (SCL) diplomas in Chemical & Green Technology and Chemical & Pharmaceutical Technology. This represents almost 39% of the total and shows the high employability of NYP graduates!

The launch, officiated by Acting Minister for Education (Higher Education and Skills) Ong Ye Kung, took place at petrochemical giant Shell's premises on Pulau Bukom. Shell alone has 16 employees on the ELP, and eight of them are from NYP.

The first batch of ELP participants will undergo an 18-month work-study programme with eight major companies from the energy and chemicals sector and receive a monthly wage of \$1,400 to \$2,000 per month with a shift allowance of \$800 to \$1,100. They have a career head-start in this industry as process technicians, with a dedicated pathway for future advancement planned for them. Whilst working, they will also take up an advanced diploma with Singapore Polytechnic.

Those who successfully complete the ELP can pursue a related degree with local universities such as the Bachelor of Technology (Chemical Engineering) at National University of Singapore and the Bachelor of Engineering (Chemical) at Singapore Institute of Technology-Newcastle University. As a first for the ELP, these two universities will offer the ELP graduates exemptions in selected modules.

With Minister Ong Ye Kung at the launch of the Earn and Learn Programme for the Energy and Chemicals Sector are 16 Shell employees and half of them (circled in yellow) are NYP graduates from the School of Chemical & Life Sciences.



Partnerships To Enhance Learning Journeys

Student Project Centre with Guangzhou Panyu Poly



A firm handshake by Mr Meng and Mr Heng sealed the deal for staff and student exchange programmes between Guangzhou Panyu Polytechnic and NYP.

A new partnership inked with the Guangzhou Panyu Polytechnic (GZPYP) formalised the set-up of the GZPYP Student Project Centre located in Nanyang Polytechnic (NYP) campus. With this new Centre, both parties hope to scale new heights in promoting technical and cultural exchanges between students and staff members.

A Memorandum of Understanding (MOU) signed by the Party Secretary of GZPYP, Meng Yuanbei, and NYP's Deputy Principal (Organisational Excellence) Henry Heng sealed the deal.

GZPYP is among the top 100 model-polytechnics, out of more than 1,300 polytechnics in the People's Republic of China. Recently, it was ranked among the top 10 in China. Over the years, it has sent more than 100 staff members and 50 students to NYP for training in various management and pedagogy programmes.

Under the MOU, GZPYP will send two batches of students each year to the new Centre. The inaugural batch of 22 students, comprising mostly top students and student leaders, accompanied by two staff members, arrived here for a learning journey for 10 days in May 2016. They took part in various activities at NYP schools, one of which was a Design Thinking Workshop conducted by the School of Design.

Currently, NYP has an Overseas Students Project Centre in GZPYP which was set up in 2010. To date, more than 1,300 students and 83 staff members from NYP have visited this project centre under various student-staff exchange and project development programmes.

Mentorship with Hotel Veterans



AccorHotels mentors with DHTM students

Twenty-six hotel veterans from AccorHotels signed a deal with the School of Business Management to mentor 70 Diploma in Hospitality & Tourism Management (DHTM) students for two academic years, starting from their second year of study. Captains in their domain areas such as Rooms Division, Revenue Management and Food and Beverage Management, the mentors will provide DHTM students with support, guidance and career advice.

The first mentor-mentee meeting was held in L'Rez, NYP's Training Restaurant in July 2016. The mentors shared on the rewards and challenges of working in the hospitality and tourism industry, using interesting anecdotes.

Learning in Taiwan University

A renewed Memorandum of Understanding (MOU) between Nanyang Polytechnic and the National Central University (NCU) will continue to bring learning benefits to students from both institutions. The MOU was signed by Director of School of Business Management (SBM) Loh Chuu Yi and Vice President for International Affairs, NCU, Dr Hsu Ping-Yu.

Since 2014, SBM has sent 15 students to spend a semester at NCU's School of Management. Colleagues from NYP's Schools of Chemical & Life Science, Engineering and Information Technology also met with the NCU's management to explore potential collaboration opportunities.

This MOU renewal will see both institutions continuing their collaboration in areas such as student and faculty exchanges and joint applied research.

Director SBM Ms Loh Chuu Yi with Dr Ping-Yu Hsu, Vice President for International Affairs, National Central University, Taiwan.



The Best Skills in Singapore

Worldskills Singapore 2016

It was the best medal haul amongst the polytechnics and Institute of Technical Education (ITE). Nanyang Polytechnic (NYP) clinched six gold, seven silver and six bronze medals at Worldskills Singapore (WSS) 2016 which was held at ITE College Central in early July. The nationwide skills competition saw a total of 150 young talents from the five polytechnics and ITE going through gruelling assignments in different trades and skills.

Altogether, 35 NYP students competed in 15 out of 17 Skill Areas such as CNC Milling, Graphic Design Technology, Health and Social Care and IT Software Solutions for Business, Mobile Robotics, Cooking and Visual Merchandising.

Fazira Binte Zulklifi, a final-year Diploma in Nursing student, struck Gold in the Health & Social Care category. It was a difficult period for her during the competition because her grandmother passed away just a week before the competition started. Although she was grieving, she showed resilience and told herself to hang on and strive to treat each patient like how she would treat her loved ones.



A triumphant moment for nursing student Fazira.



NYP Gold medallists in Worldskills Singapore 2016 are:

- Koh Yang Ming (Diploma in Digital & Precision Engineering) in CNC Milling category
- Low Kin Lin (Diploma in Interaction Design) in Graphic Design Technology category
- Fazira Bte Zulkifli (Diploma in Nursing) in Health and Social Care category
- Li Kangli (Diploma in Cyber Security & Forensics) in IT Networks Systems Administration category
- Clarence Lim / Eljer Chua (Diploma in Mechatronics Engineering) in Mechatronics category
- Wong Shu Ting / Raymond Tay Sze Seng (Diploma in Telematics & Media Technology/ Diploma in Engineering with Business) in Mobile Robotics category

All winners received medals and cash awards of \$3,000, \$2,000 and \$1,000 for gold, silver and bronze respectively. Best of all, they will represent Singapore at the 44th WorldSkills Competition to be held in Abu Dhabi, United Arab Emirates, in October 2017.



NYP Worldskills 2016 Medallists with Minister Ong Ye Kung (middle in white shirt) and NYP Principal & CEO Jeanne Liew (standing fourth from right).



The NYP team (in light blue T-shirts standing back row) with fellow participants from all over the world.

Imagine Cup Singapore



Team YuuY (from Left) Francis Swee, Yu Zhigang, Yu Yi and Guo XiHuang.

A made-in-Nanyang Polytechnic social robot called Ruth took the top prize in the World Citizenship Category in the Microsoft Imagine Cup Singapore competition. Winning the local leg of the competition gave the creators, who called themselves Team YuuY, a ticket to the World Finals that was held in late July 2016 at Microsoft's headquarters in Seattle, United States. There, they faced-off against 12 other teams from around the globe.

Imagine Cup is a global student technology programme and competition that provides opportunities for students across all disciplines to team up and use their creativity, passion and knowledge of technology to create applications, games and integrate solutions that can change the way we live, work and play.

Team YuuY comprised three fresh graduates (Goh Xihuang, Yu Zhigang and Yu Yi) from the Diploma in Mechatronics Engineering and one final-year student (Francis Swee) from the Diploma in Electronics, Computer and Communications Engineering. Functioning as a personal assistant for the elderly, Ruth understands speech and context and can also reciprocate with appropriate verbal answers, respond to emotions, display expression feedback and call for help. The robot had a chance to meet Mr Satya

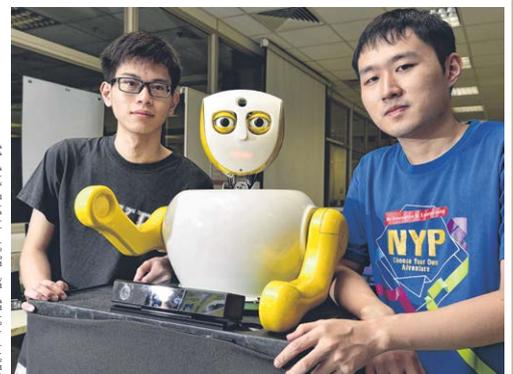
Nadella, the Chief Executive Officer of Microsoft Corporation, when he was in Singapore recently.

A total of 18 students from three diplomas in the School of Engineering (SEG) participated in the local leg of Imagine Cup which had three categories: Games, Innovation and World Citizenship. Out of 65 teams, three SEG teams were amongst the 15 that advanced to the semi-final round. Eventually, Team YuuY was crowned the Singapore champion in the World Citizenship category. Taking on the world stage was a daunting experience but the boys did not let up in giving their best shot against competing teams from countries like China, Germany and Poland. Their project even earned a prominent coverage in The Straits Times!

Dr Edwin Foo, the team's supervisor and SEG senior lecturer, revealed that the team will scale up Ruth's capabilities such as giving her legs to allow her to move around, and explore how she can detect falls among seniors living at home.

This social robot is a boon to seniors living alone

Her name is Ruth. Not a single drop of blood runs through her veins, yet she blinks when she looks at you. She cannot feel, yet she smiles when you look happy, and gets worried when you look sad. You know how she will react. She is Singapore's newest social robot, and she is here to help you. She is Singapore's newest social robot, and she is here to help you. She is Singapore's newest social robot, and she is here to help you.



Mr Francis Swee, 22 (left) and Mr Yu Zhigang, 22 with Ruth. The two students from Nanyang Polytechnic made up half of Team YuuY, which came up with Singapore's newest social robot. Ruth is designed to act like a human being and intended to eventually be able to help elderly people living alone. (Photo courtesy of The Straits Times)

The team was featured prominently in The Straits Times. Source: The Straits Times © Singapore Press Holdings Limited. Permission required for reproduction.

STUDENTS' ACHIEVEMENTS

Captivating Student Works for NDP 2016



The impressive animation works produced by NYP's animation students for NDP 2016.

If you are one of the lucky ones who had tickets to watch the National Day Parade 2016 at the National Stadium, did you notice the animation displays on the four elongated LED screens below the stage? Each measuring 32m x 2.56m, these screens are positioned to provide animation effects, designed by Nanyang Polytechnic (NYP) students, to the live action on stage.

It was in NDP 2011 that NYP students were first invited to participate in the creative development for the parade. Since then, it has become an annual invitation (a great honour indeed!) and their works only get better and better.

This year, a team of final-year students from the Diploma in Motion Graphics & Broadcast Design kicked off the project six months back. The first batch of nine students developed the concept and storyboard for the animation that was required in Acts 1 and 2 in the show part of NDP. They handed the baton to a second batch of eight students who did most of the production work. Act 1 tells the story of Badang, a legendary folk warrior whereas Act 2 depicts the co-existence of the four national races.

The students worked closely with CraveFX, a full fledge animation, motion effects and visual effects company founded by a NYP alumnus, which also developed animation for this NDP. Also providing

creative direction for NDP 2016 is another alumnus, Brian Gotong Tan, who studied digital animation. We are proud that the School of Interactive & Digital Media (SIDM) has nurtured highly-skilled professionals in this field.

Another team of eight final-year Diploma in Mass Media Management (DMMM) students took up the task of documenting the NDP from start to end. The 10-week project had them filming the practice sessions by various performing groups at different locations such as Nee Soon Camp and Singapore Expo, and also at the national education and preview shows.

All the footages they filmed were edited into three appreciation videos, lasting 4 - 5 minutes each, and shown at three occasions. The first was shown on 9 August itself to thank all the performers and helpers. The second and third were shown at separate appreciation events.

The projects were demanding, back-breaking and at times, frustrating when circumstances didn't work to their advantage. But when their end products were shown to the tens of thousands watching the parade live at the National Stadium or at home, pride was written all over their faces. After all, how many poly students can boast that their works are shown at a magnificent national event?



Hard at work rendering the animation works in the SIDM studio.



NYP's media students documenting NDP 2016 from practices to rehearsals, day and night.

Stellar Performances by NYP Students

Top Prize at Sembcorp-EMA Energy Challenge 2016



From left: Fedi, Chee Wei Ting, Tan Xiu Yian, Rosliana Nasrullah Bte Anwar, Siti Nurulhudah Bte Yunus, Toh Jun Ren, Nooraishah Bte Rahmat, Ong Sei Hui. (Back Row): Goh Kwang Ping, SEG Manager and Wong We Hung, SEG Assistant Manager.

Diploma in Electrical Engineering with Eco-Design final-year students did Nanyang Polytechnic (NYP) proud with their first prize win in the Polytechnic category at the Sembcorp-EMA Energy Challenge (SEEC) 2016. Ten teams from four polytechnics took part in this annual competition jointly organised by Energy Market Authority and Sembcorp to inspire more engineering students to pursue careers in the power sector. They received a cash prize of \$1,000 and as well as internship opportunities with Sembcorp.

SEEC comprises a strategy-based scenario-planning game which challenges the participants to work together as a team to manage and develop a power ecosystem, while maintaining profitability, reliability and environmental impact - a real-world issue that electrical power professionals face at work.

Taking part in the competition has given them deeper insights into the trade-offs required to address the energy trilemma that Singapore is facing when considering economic competitiveness, energy security and environmental sustainability.

Sweeping Top 3 Prizes in Crystal Growing



The winning team (from left): Ray Tan, Wendy Ang, Khairunisa and Marcus Tan.

Two teams of students from the School of Chemical & Life Sciences (SCL) swept all top three prizes at the 12th Singapore National Crystal Growing Challenge (NCGC) - the Champion, the 1st Runner-up and the Biggest Single Crystal prizes.

NCGC is a biennial event organised by the National University of Singapore and is open to students from secondary schools, international schools, junior colleges, Institute of Technical Education and polytechnics.

The competition has three categories - Junior, Senior and Open categories and SCL sent two teams to participate in the Senior Category. SCL Team 1, comprising Diploma in Medicinal Chemistry students Ray Tan and Wendy Ang, won the Champion and Biggest Single Crystal prize. SCL Team 2 members Marcus Tan (Diploma in Pharmaceutical Sciences) and Khairunnisa Bte Khairul Anuar (Diploma in Molecular Biotechnology) took the 1st Runner-up prize.



The winning crystal.

The two teams went through six painstaking months to grow their crystals. The chemicals for growing crystals were difficult to obtain and the teams also had to ensure the crystals were grown in the right conditions. Most crystals would have the tendency to crack or turn out rather small. But SCL Team 1 managed to grow a crystal that was about 2x2 inches in size.

ALUMNI PROFILE



PsychKick founders Shafiqah Nurul and Sayid Hafiz

Getting Psyched and Kicked Into Startup

A little digital startup created out of frustration by one of its founders has gained attention and even attracted funding from various sources. Nanyang Polytechnic (NYP) alumni Sayid Hafiz Bin Sayid Zin and Shafiqah Nurul Afiah Bte Ramani set up PsychKick last year, a digital application that aims to help psychotherapists treat their client more efficiently.

Both of them already harboured plans of becoming entrepreneurs back when they were studying at NYP. In fact, they co-founded the Entrepreneurship Club in NYP and tried their hands running small sole proprietorship businesses even before they graduated.

Sayid did his Diploma in Business Informatics whereas Shafiqah pursued a Diploma in Media Studies & Management. Both graduated in 2013. Thereafter, Shafiqah pursued her degree in film at LASALLE College of the Arts while Sayid spent two years starting on an IT business that didn't pan out and then took on a web developer job.

PsychKick came about when Shafiqah was hospitalised in a psychiatric ward early last year. She experienced the inefficiency on-site and the follow-up treatment processes. She felt that significant improvement could be made using digital tools to link up psychotherapists with their clients.

In the current system, psychotherapists use hard copy paper to assign tasks or homework to their clients, such as jotting down things that made them happy or sad and their mood journeys in a day. Patients find it challenging coping with the daily regiment of doing their homework on pieces of paper for two to three months until their next appointment. They have to pay careful attention not to lose the papers or risk having to rewrite everything.

What PsychKick hopes to do is to digitise the process on a mobile app. The daily homework can be recorded on their smartphones or tablets. Features such as pop-up reminders and notifications will keep them on their toes to complete their homework. The psychotherapists are also linked to their clients on the app and would take notice if any inactivity is observed. With the data, they need not wait for their clients to show them their homework before prescribing the next course of action. Much time is therefore saved along the way.

Shafiqah shared her idea with Sayid. With his strength in IT, she hopes Sayid could help her develop the digital application. To concentrate fully on her start-up, she decided to defer her studies.

The start-up received support, first from Investments Infocomm, a subsidiary of the Infocomm

Development Authority (IDA). A meeting with Larry Tchiou, the founder of UNFRAMED's Enabling Change Incubation Program (ECIP), secured them their first financial funding. Set up in 2014, ECIP is a social-impact startup incubator by entrepreneurs for entrepreneurs, whose mission is to build great startups with clear social impact.

Larry pushed them from just having an idea to having a company. "With his push, we worked harder and were able to realise many of our goals through his mentorship," says Shafiqah.

PsychKick is marketed as a service enhancer for psychotherapists, a digital tool for them to improve their services with their clients which in turn will hopefully accelerate their client's recovery. There are plans to roll out a subscription fee for psychotherapists who opt for the service, and their clients can use it for free.

Hafiz shares that while there were various modules in his NYP course that were useful in his entrepreneurial journey, the group project works benefitted him the most. "For every group project, we had to brainstorm to generate ideas and execute them. This is the same when building a start-up," he says. He is also thankful to his lecturers who gave him the opportunities to take part in IT competitions that helped to deepen his skills and knowledge in this field.

The business modules in Shafiqah's course has helped her significantly in preparing for this start-up. "The business aspect of my media course nurtured the entrepreneurial mindset in me. I was equipped with the know-how of starting and managing a business," says Shafiqah, who misses most the warmth of NYPians during her three-year journey.

She recalls fondly her NYP days: "Since day 1, I was comfortable talking to schoolmates in campus, and a number of times, even asked for help from strangers. Time and time again, they helped me even though they didn't know who I was. I felt very welcomed in NYP and I miss the amazing warmth I felt when I was there."