{ PiXELS }

Temasek POLYTECHNIC | School of Informatics & IT

Opening of the
IT Security
& Forensics Hub

FEATURES

- ☑ Learning Enterprises at IIT
- ☑ Service to the Community
- ☑ Honing Skills at Competitions
- ☑ Developing a Global Mindset

" Building deep skills through real-world experiences "

Check out our 8 exciting and industry-relevant courses:

- Big Data Management & Governance (T60)
- Business Intelligence & Analytics (T57)
- Cyber & Digital Security (T15)
- Digital Forensics (T55)
- Financial Business Informatics (T17)
- Game Design & Development (T58)
- Information Technology (T30)
- Mobile & Network Services (T42)

Students undergoing training at the TP-IBM Security Operations Centre

Opening of the IT Security & Forensics Hub

DEVELOPING DEEP SKILLS
@ IT Security & Forensics Hub

The IT Security & Forensics Hub was launched at the School of Informatics & IT on 27 July 2015 by the Minister for Communications and Information and Minister-in-charge of Cyber Security, Dr Yaacob Ibrahim.

Work on the Hub was completed in April 2015. The Hub comprises Learning Enterprises such as the TP-Cisco Internet of Everything Centre, the TP-IBM IT Service Management Centre, the TP-IBM Security Operations Centre and the TP-RSA Security Operations Centre.

These Learning Enterprises function as business units where senior students apply the skills they have acquired and engage with real clients to provide IT services, work on client projects or undertake security analysis. They are trained in advanced technologies that are used currently in Industry.

Students are also mentored by both Industry experts and TP staff to develop deep skills that prepare them as IT professionals. While working at the Learning Enterprises, our students also have the chance to undertake professional IT certifications to further prepare them for an IT career.

> ❝ We are given the opportunity to learn specialised security software in the Security Operations Centre (SOC) and also carry out real-life monitoring of networks. This experience in the Learning Enterprise, coupled with our Industry internships, definitely prepare us well for our future careers in Cyber Security. ❞
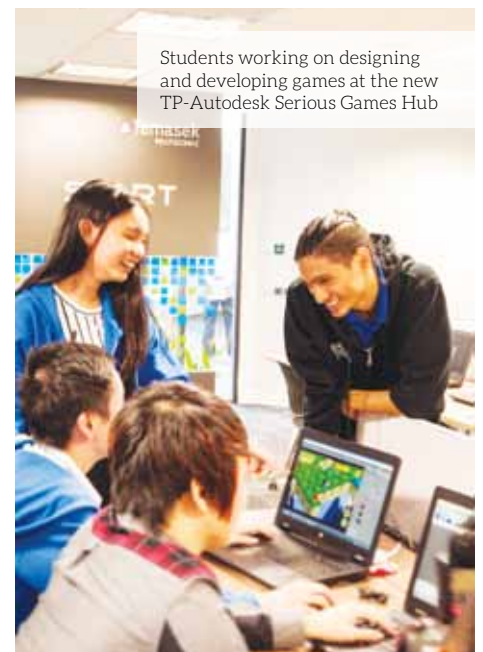>
> **Shamus Neo**
> *Year 3, Diploma in Cyber & Digital Security*
> *(Formerly from Tampines Secondary School)*

Sharing ideas with the Minister

The TP-Autodesk Serious Games Hub at the School of Informatics & IT

Students working on designing and developing games at the new TP-Autodesk Serious Games Hub

TP-Autodesk Serious Games Hub: CREATING REAL GAMES

> " I was fortunate to have the opportunity to work with an established game company, Fatshark, a Swedish game studio, on a real game along with some of my friends. During the development of the game, Project Moonless, we were mentored by our lecturers as well as the team from Fatshark, who gave us valuable feedback. It was good exposure that gave me a taste of the industry and all of us are proud of the end product. "

Andre Ng Bing Han
Year 3, Diploma in Game Design & Development
(Formerly from Queensway Secondary School)

With the launch of our latest Learning Enterprise, the TP-Autodesk Serious Games Hub, students from the Diploma in Game Design & Development will have more opportunities to work with Industry to gain real-world game development experience.

The newly-opened Hub comprises four spaces, dedicated to different aspects of game development. Our students will be working within these spaces as part of their internship. They are:

- the **Select Studio** which focuses on game design;

- the **Start Studio** which focuses on game production to publishing;

- the **Autodesk Certification Centre** which allows current students, alumni as well as industry professionals to obtain Autodesk Certifications; and

- the **Ui/Ux Future Lab** which looks at user experience and is the final stage of a pipeline where testing and user experience are looked at.
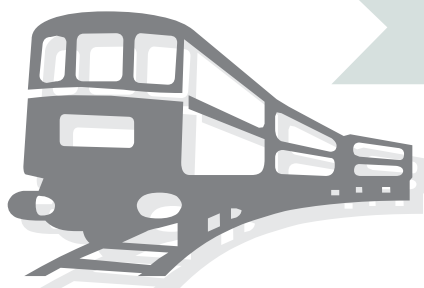

Opening of the TP-Autodesk Serious Games Hub (From left: Mr V.R. Srivatsan, Managing Director, Autodesk, Mrs Lee-Lim Sok Keow, Director, School of Informatics & IT)

Happy and proud winners, Chan Shi Cong (3rd from left) and Ng Jia Min (4th from left)

INNOVATION
for Smart Transportation

Two Senior students from the Diploma in Business Intelligence & Analytics, Chan Shi Cong and Ng Jia Min, participated in the Infocomm Development Authority (IDA) Data-Driven Innovation Challenge for Institutes of Higher Learning (IHL) on 23 Oct 2015 and emerged as first runner up. The two students formed Team Terio to pitch their idea about using analytics to improve the transportation system in Singapore and called it the Two-Pronged Approach to Smart Transportation.

> We first knew about the IDA Data-Driven Innovation Challenge for IHLs 2015 through our lecturer. What compelled Shi Cong and I to participate was really our desire to put the skills we have learnt in the Diploma in Business Intelligence & Analytics into practice, particularly data visualisation.
>
> Our entry — Two-pronged Approach to Smart Transportation in Singapore — is an infographic which aims to highlight the problems with our current transport system and propose solutions in the form of an app. We used a mash-up of datasets (from external sources and Desktop as a Service [DaaS] platform) to support our analysis. We hope that through the power of data analytics, Singapore would be able to move towards a greener and smarter nation equipped with world-class transport facilities.
>
> We were elated when we received news that we came in 1st in the preliminary round. As we advanced to the final round, we received guidance and tips from our lecturers and Course Manager.
>
> After the final round, we were over the moon when we received news that we were one of the Top 3 teams in the competition.
>
> Overall, we truly learnt from the experience of this competition.
>
> It has motivated us to strive beyond our comfort zones and increased our passion for data analytics.
>
> Thanks IDA and TP!

Ng Jia Min
Year 3, Diploma in Business Intelligence & Analytics (Formerly from Chung Cheng High School (Yishun))

Team Mozter (From left: Kirk Yeo, Goi Jia Jian, Van Phuong Thanh)

Team Mozter at Microsoft Headquarters in Seattle (USA)

EXCELLING at the Imagine Cup World Finals (World Citizenship Category) in Seattle (USA)

Team Mozter, comprising three senior students from the Diploma in Information Technology, Goi Jia Jian, Van Phuong Thanh and Kirk Yeo, emerged as first runners up in the World Citizenship Category, of the Global World Finals of the Imagine Cup 2015.

The competition was held at Microsoft's home turf of Seattle (USA) from 27 to 31 July 2015, where 30 teams from all over the world competed in the competition. These projects were deemed to be the best of the best, selected from tens of thousands of global participants.

The project that the team presented at the finals, Mozter, is a mosquito monitoring platform that leverages the Internet of Things and power of cloud-based technologies to assist mosquito control officers with national mosquito surveillance and control programmes. With about 3.2 billion people – almost half of the world's population – at risk of malaria according to the World Health Organisation, the students have demonstrated how technology can be used for the greater good.

> " The Imagine Cup was a truly amazing experience for us because we were able to learn and do things that we wouldn't otherwise have the chance to do in a classroom. This included making sensors and working with hardware. It gave us a platform to make really cool things with technology.
>
> Winning the Singapore round of the competition and going to the States to compete against international teams was an eye-opener for us. We got to see how others around the world applied their technological knowledge and ideas in their projects. Getting to know the other competitors and exchanging ideas revolving around technology was also a rewarding experience. "
>
> **Goi Jia Jian**
> *Year 3, Diploma in Information Technology*
> *(Formerly from Junyuan Secondary School)*

SiTF Best Innovative ICM Student Project Gold Award

Team Mozter did the School proud once again by winning the Gold award for the SiTF Best Innovative ICM Student Project (Tertiary) category. Inaugurated in 2009 by Singapore Infocomm Technology Federation (SiTF), the SiTF Awards is an annual competition that recognises made-in-Singapore infocomm innovations.

The RSA SOC Simulation Challenge is a network forensic analysis game that exposes participants to network and forensic analysis within a real-world breach scenario using simulated SOC dynamics. There is a series of challenge questions that guide the participants through the analysis. Answers are derived through data exploration and investigation of sophisticated "puzzles within puzzles".

RSA SOC
Simulation Challenge

A team of senior students, Lim Wei Ming, Shamus Neo Zhi Kai and Tan Xiang Sheng Maurice, from the Diploma in Cyber & Digital Security, emerged as champions when they participated in the RSA SOC* Simulation Challenge on 27 November 2015 at EMC International.

*SOC stands for Security Operations Centre

" Competing in the RSA SOC Simulation Challenge has allowed me to put my skills and SOC knowledge to the test. Prior to the competition, I was in the School's SOC for my internship, therefore, the process of forensic and investigation analysis were not new to me. What I found challenging was the unfamiliar software that were used in the competition. I had to figure them out on the spot which took a lot of time.

As I have worked with Maurice and Wei Ming before, we knew one another's strengths and weaknesses, therefore, we were able to divide our roles and focus on our respective areas. Coming in first was definitely unexpected as the competitors were strong but to be able to compete together with my close friends was definitely more valuable than any prize. "

Shamus Neo
Year 3, Diploma in Cyber & Digital Security
(Formerly from Tampines Secondary School)

" Participating in the RSA SOC Simulation Challenge allowed me to gain more experience in network forensic analysis. Being on the same team as Maurice and Shamus was also something I looked forward to because I knew we would work well together.

For the challenge, we had to answer a variety of digital forensic questions using software provided by RSA. The fastest team to answer all questions correctly wins, so speed and accuracy were important. We were well-prepared and I did not feel too nervous.

Overall, taking part in the challenge was enriching for me as I was able to put what I had learnt in school to good use. I am very glad that we won the challenge. "

Lim Wei Ming
Year 3, Diploma in Cyber & Digital Security
(Formerly from Orchid Park Secondary School)

" I found the RSA SOC Simulation Challenge a good test of what I had learnt in school. The questions we had to answer were all related to network and malware forensic analysis. I was glad to have picked up skills on malware analysis during my internship which greatly helped in this competition.

In order to arrive at the correct solutions, we were given two software that enabled us to extract information from a hard disk and to monitor the simulated network information. Since there were three sections, my teammates and I decided to divide the work among ourselves. Throughout the competition, we built on one another's strengths and were able to make much progress. I did not expect to win and to find out that we came in first at the end of the day was a pleasant surprise. It was a good experience and I am glad we were able to keep our cool and apply what we have learnt for this challenge. "

Tan Xiang Sheng, Maurice
Year 3, Diploma in Cyber & Digital Security
(Formerly from Compassvale Secondary School)

From left to right: Shamus Neo Zhi Kai, Tan Xiang Sheng, Maurice & Lim Wei Ming

From left to right: Wong Chun Foong, Ho Jiahui, Ian Hartono Budianto TK, Fong Jaye

SOLVING TRANSPORT PROBLEMS for the Community

The aim of the Land Transport Authority's (LTA) Transport and You(th) Hackathon was to challenge participants to use the rich land transport datasets to develop innovative solutions to enhance commuter travel experience through the use of technology.

Focusing on enhancing commuters' travelling experience on buses, a team from the Diploma in IT identified "bus bunching" as the root cause of overcrowding in buses. The team, known as Team Concept Crew, led by Ian Hartono Budianto TK, and consisting of Wong Chun Foong, Ho Jiahui and Fong Jaye, were supervised by senior lecturer, Mr Yeak Shaw Wen. They innovatively used the data given to allow commuters to see the crowd level of arriving buses through their App, Transport One.

Team Concept Crew

" The LTA Hackathon was an opportunity for my team to prove that our idea was something viable and beneficial to our community. We competed with many other teams from polytechnics, universities and even start-ups in the LTA Hackathon.

It was rather intimidating at first but we managed to pull ourselves together and started working. We prepared a prototype of our application and presented it to the judges. There were a lot of brainstorming sessions to ensure that the prototype was viable.

After the presentation session, we waited for the semi-final teams to be announced. It was a nail-biting wait as our team was the last to be announced. From then on, we went from strength to strength, presented in the finals, and was announced the winner for our category. The entire team was so happy to know that we had won. We won the "Best App for Public Transport" category. We even had the opportunity to present our idea to the Prime Minister himself!

From this competition, the team became stronger. We learnt to persevere and motivate one another during the competition. There were times when we wanted to give up but we pressed on. No words could describe how happy we felt to win this competition after putting in so much time and effort from the first day of preparation. All the hard work was definitely worth it in the end. "

Ian Hartono Budianto TK
Year 3, Diploma in Information Technology
(Formerly from St. Hilda's Secondary School)

" Participating in the LTA Hackathon was a fruitful and unique experience. Through this hackathon, we were able to pick up useful programming skills. We also got the opportunity to share our idea with professionals from the industry who contributed valuable feedback to improve our idea.

As the other teams were from universities and start-ups, we were initially overwhelmed by the competition. We thought we did not stand a chance to win against them as they had such great ideas. However, our worries were unfounded as our idea won the "Best App for Public Transport" category. The opportunity to interact with the Prime Minister and share our idea with him was also priceless. "

Wong Chun Foong
Year 3, Diploma in Information Technology
(Formerly from Ping Yi Secondary School)

A **PASSION** for Business and Entrepreneurship

A team of Informatics & IT students emerged as champions in the Singapore final of the Junior Achievement Company of the Year (JA COY) Competition 2015 held on Saturday, 17th January 2015. The team consisted of 19 students from the Diploma in Financial Business Informatics and 1 student from the Diploma in Game Design & Development. The JA Company of the Year programme aims to unlock the innate ability in students to solve a problem or fill a need in their community through an entrepreneurial spirit.

Faisal Ichsan Samudra, a student from the Diploma in Financial Business Informatics, shares his experience of being a part of the team.

The product "Bottle Up"

The product "Wall Cradle"

" I decided to join the Junior Achievement Company of The Year Competition because of my passion for business and entrepreneurship. I also wanted to pick up the skills needed for the workforce even though I was only in Year 1 when the competition started. I believe it is good to think ahead for the future.

My team and I learnt how to start up a company, sell shares in the company, run the company under different functional departments such as Human Resource, Production, Marketing, Finance and Public Relations, and sell a product to achieve the company's vision and mission under the mentorship of TP and Bloomberg staff. We collaborated with Sun Love Nursing Home and the Singapore Cheshire Home, to train physically and intellectually challenged residents with the essential skills to make environmentally-friendly products. By doing so, we aimed to develop craftsmanship for potential employability among people who are less fortunate.

I would say that the hardest part of the competition was idea generation. It was hard coming up with an innovative product or service that was related to the theme of the competition which was "Social Awareness". After going through many meetings and brainstorming sessions, we finally came up with "Bottle Up", a simple product made out of a plastic bottle that acts as a cable, coin or accessory holder and "Wall Cradle" which is a hanging phone charging pouch. And after many months of blood, sweat, tears, and sleepless nights, our innovation managed to win the Gold award in the Singapore round of the competition.

Personally, I feel it was really important to work together as a team in a business as every effort counts. Although there were many conflicts when we were generating ideas, everyone learnt how to communicate better and be more tolerant with one another. But most importantly, I learnt the basics of setting up and running a business which would benefit me when I graduate. "

Faisal Ichsan Samudra
Year 2, Diploma in Financial Business Informatics (Formerly from Ping Yi Secondary School)

Faisal (front row, 3rd from left) with the winning team

Manning the booth for the business

The team behind the TP-25 t-shirts (Back row, 5th from left, Lutfil Hadi)

SHOWING their HEART for fellow students

Led by Lutfil Hadi from the Diploma in Business Intelligence & Analytics, a group of students from the School of Informatics & IT contributed to the fund raising efforts for needy students in Temasek Polytechnic by coming up with a simple but brilliant idea of selling TP25 t-shirts to staff and students.

From conceptualisation to design and marketing, the students did them all on their own, applying sales and marketing concepts that they had learnt in their respective courses to ensure that the idea took off. They also applied their knowledge of analytics to identify customer preferences. The team raised more than $30,000 for financially-needy TP students. This amount will go far to help students and their families who are in need.

" I've always had an entrepreneurial streak. I believe that school is more than just studies, it is also about making meaningful contributions. By doing that, we add a different dimension to school life.

I thought of the idea to sell TP25 t-shirts towards the end of 2014 as my contribution to the community at Temasek Polytechnic. In my ITE days,

I organised a camp for my fellow students that is still being run today. When I was in Year 2, my family ran into some financial difficulties and I was able to receive help from TP's Campus Care Network (CCN) Fund. It really helped my parents and me. I decided then that I would use my energy and ability to repay the school and give back to society.

The experience also gave me the chance to apply the skills I learnt from the modules in my diploma to start and sustain a business. It wasn't easy as there were naysayers but it was a challenge I set myself. I took it as an opportunity to learn. Profit wasn't the main thing on my mind. I wanted the experience so that I might fulfil my dream of setting up my own business one day. The result was beyond my

expectations. We sold more t-shirts than we expected to sell.

I hope that people get inspired by this project and embark on their own entrepreneurial journey. "

Lutfil Hadi Bin Mohammad Razif
Year 3, Diploma in Business Intelligence & Analytics (Formerly from ITE College, Central)

Vice President, Jay Tan (left), and President, Xavier Oh (right) of the Informatics & IT Studies Club with MP Tin Pei Ling at the Visit to the Community event

Visit to the
COMMUNITY

The Informatics & IT Studies Club (IITSC) collaborated with Geylang East Home of the Aged to bring some Mid-Autumn festive cheer to the senior citizens from the Home. The students also demonstrated to the elderly how technology has advanced and how they can benefit from it.

Ng Zheng Jie, Samuel, from the Diploma in Game Design & Development, who is also a Publicity Officer with the IITSC, shares his experience with us.

Volunteers escorting the elderly to the nearest NTUC supermarket

Has the project achieved its objective?

" Yes, definitely. The volunteers bonded with the senior citizens through the various activities and interactions that we planned for them. The activities involved bringing the senior citizens safely to the supermarket to buy groceries; assisting the senior citizens in tending the stalls at the Flea Market event; and helping to raise funds for the Home through the sales of products that were either brought by the volunteers or from the Home. "

What were the lessons learnt as a result of organising and running this project?

" We learnt that communication among the IITSC Management Committee was very important as it ensured that the instructions given during the events were clear. As the activities also involved taking care of the elderly, we had to ensure that the safety of the elderly was prioritised, and clear communication enabled us to do that. "

What would you have done differently?

" We could have included more games which are suitable for senior citizens to allow for more interaction between the volunteers and the senior citizens. The volunteers found the process of volunteering meaningful as they managed to create new friendships with the senior citizens. So if more time could be spent on engaging and interactive games, it would have benefitted everyone. But overall, we are pleased as the event went smoothly. "

Ng Zheng Jie Samuel
Year 1, Diploma in Game Design & Development
(Formerly from ITE College (Central))

Volunteers working together with the elderly to purchase items in the NTUC supermarket

Overseas Community Project: A Student's EXPERIENCE in CAMBODIA

The group outside the Royal Palace, Phnom Penh

Fifty-three students, accompanied by two senior lecturers, John Leong Peng Kwai and Ler Lay Guat, from the School of Informatics & IT went on an Overseas Community Project trip to Cambodia from 28 September to 4 October 2015.

As part of their training before embarking on the trip, the students were enrolled in the cross disciplinary subject, Sustainable Community Development, in which they came up with projects to implement for Samrong High School in Siem Reap. Some of the projects were designed to fulfil long term benefits for the school and the children.

Yoeven D Khemlani, from the Diploma in Game Design & Development, shares his experience in Cambodia.

"We went to a school in Siem Reap called Samrong High School to educate the local children on something that we felt was sustainable and would benefit them in the long run. The school was built mainly for children in that area who aren't able to afford standard school fees.

One of the things we taught the children was how to create Solar Bottles, which are bottles filled with bleach and water and placed halfway through the roof. As the sunlight shines in from the top, the bottom area of the bottle with the liquid would light up as bright as a light bulb. We wanted to teach the children this skill for two reasons. First, to give them basic physiological needs such as light to study or do work. Second, to create a mindset of thinking differently and thinking out of the box to solve some of the problems that they face.

What I imagined before embarking on this overseas community programme was having excitement, fun and adventure but after spending some time with the locals, it became a great learning journey. At the end of the programme, I might not have left with something I can take back and show others but I left with something that is only mine, the moments of joy I saw in the children's eyes just for being able to sit in class and learn from us. The day I left Cambodia, I realised that what I experienced there would be unforgettable.

We created a type of friendship that I have not experienced in Singapore. The type that was truly innocent, friendships that were created through smiles and nothing else. The children and people there don't have much knowledge of English, which made communication really hard. Then I realised that where we live, even though we are able to communicate in fluent English, there are still so many problems between people. In a country where we don't know how to communicate, the friendship we create with just smiles and expressions were so much stronger. I learnt that we do not always need words to communicate.

So the most valuable lesson I bring back from Cambodia is to smile, yes smile. Even if we have everything or nothing, take time out to smile, be happy and cheerful and be appreciative of whatever situation we face."

Yoeven D Khemlani
Year 1, Diploma in Game Design & Development (Formerly from Changkat Changi Secondary School via the Polytechnic Foundation Programme)

Teaching the local children origami

The group with the villagers

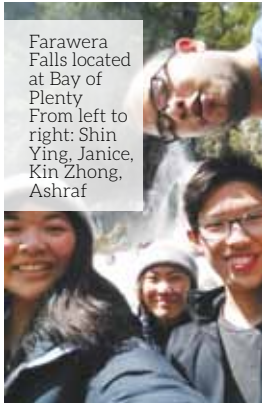Giving bicycles to the villagers (1st from right, Yoeven D Khemlani)

Cyber Security Challenge 2015 at the University of Waikato
From left to right: Ye Kai, Mickey, Kin Zhong

Farawera Falls located at Bay of Plenty
From left to right: Shin Ying, Janice, Kin Zhong, Ashraf

Leap Trampoline, Lazertag Park at Hamilton
From left to right: Dillon, Pradyut, Kin Zhong, Ayesha, Xiao Tong, Ze Han, Rushil, Shaun

Golf Outing at Hamilton
From left to right: Ryan, Sam, Baden, Mark, Matthew, Kin Zhong, Yekai, Sjoerd, Harris, Shaun, Sivadon, Brandon, Siuta

What caught your attention when you first arrived?

" The first thing I noticed was that the way of life for the locals is much more relaxed, even more so in Hamilton. (Hamilton is where I spent the majority of my time in New Zealand.) The people are generally friendlier, especially those in the service industry. Servers would actually ask how your day was. Their acceptance and friendliness towards strangers is what I like most about them. "

What did you work on in the University of Waikato?

" I worked on Android Progger which is a data provenance tool for the Android operating system found in mobile devices. Data provenance can be described as a record of the origin and the change history of data. The ultimate goal for this project was to allow users to track specific files through the use of visualisation. Users would be able to understand the changes made to the files, which application did it and what time it happened. "

What was one challenge you faced?

" I would have to say that the project was the biggest challenge I faced even though I had made preparations beforehand in Singapore. In the initial stages, I felt very unequipped for the project. Some of the concepts and requirements were difficult to achieve. However, I was able to find solutions to the problems by asking lots of questions and researching online. "

What was your most valuable lesson learnt?

" I feel that learning to be sociable is important when you are in a new environment. As independent as anyone can be, it is always good to have a friend for laughter and companionship. It is also a lot more fun to do things as a group. I saw that it was good to be open to different activities and to accept invitations extended to me. Through this, I met new people and some eventually became good friends of mine.

Effective communication with colleagues is also an important skill to possess. Being able to explain the problems I faced in my project to my colleagues and listening to their points of view allowed me to solve these problems. They contributed brilliant ideas which I would not have found out on my own. "

Chew Kin Zhong
Year 3, Diploma in Cyber & Digital Security
(Formerly from Junyuan Secondary School)
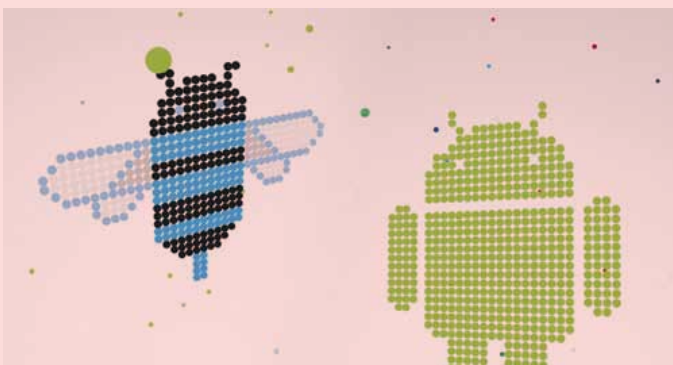
A trip to Kanazawa Castle, (1st from left, Melvin Chang)

At a robotic competition (3rd from left, Melvin Chang)

Having a meal with new friends (6th from left, Melvin Chang)

Overseas Internship Programme
REAL-WORLD lessons in JAPAN

Melvin Chang Zong Wei from the Diploma in Financial Business Informatics was attached to Toyama National College of Technology (TNCT) in Japan from 23 September to 17 December 2014 for his overseas internship. He shares his experiences with us:

What were the memorable events that took place for you?

" Several things struck me when I was in Toyama. Firstly, the transportation system took a while to get used to. The buses have fixed arrival and departure timings and were also very punctual. I had to ensure that I get to the bus stop on time to get anywhere. Even the nearest supermarket was a 30 minute walk away. I also had to get used to entering the bus from the back door and exiting through the front door. Secondly, I had to find a way of communicating as not many locals spoke English. "

What was the internship experience like in Toyama National College of Technology?

" Most of our time was spent in the lab, doing our research along with the senior students who were under the same supervisor. Sometimes, we got to join the students in subjects like English and Marketing. We were also privileged to be able to join them for some company visits and outings. "

What did you work on during the internship?

" My research project was focused on a sentence analysis program. This program was created using the programming language, Ruby. I had to do analysis using the program to find out some characteristics and patterns from words and sentences. "

What did you discover about yourself from this trip?

" Through this trip, I learnt how to live independently and to take care of my daily necessities. I also realised that communication skills are very important, especially when there is a language barrier. I learnt simple Japanese to ask for directions, and talk to people. I understood more about the Japanese culture and lifestyle which is rather different from Singapore's. And of course, from my research project, I picked up a new programming language, Ruby. "

What was the most important lesson that you have picked up from this experience?

" I would say that the most important lesson was learning to express myself. In a foreign country, you have to be more open and sociable so that people will want to talk to you and also befriend you. It is important to make the first move to talk to people sometimes. "

Melvin Chang Zong Wei
Year 3, Diploma in Financial Business Informatics
(Formerly from Junyuan Secondary School)

LKY Award winner, Lee Wei Sheng, Darren (2nd from left) with MP Indranee Rajah

> " Darren designed digital games to rehabilitate residents suffering from dementia. "

The Lee Kuan Yew Award for excellence in Mathematics and Science was introduced in 1992. The awards are given under three categories - Secondary, Pre-University and Polytechnic.

LEE KUAN YEW
Award Winner 2015

Lee Wei Sheng, Darren, scored 3 points for his O-level exams and had one burning aspiration – to become a game developer specialising in advanced artificial intelligence and cognitive computing! "My father introduced me to real-time strategy games when I was younger", said Darren when asked how his love for digital games started. He had also chosen to do the Creative 3D Animation applied subject taught by TP lecturers in his alma mater, Temasek Secondary School, deepening his interest in game development. It was thus no surprise that Darren opted to pursue TP's diploma in Game & Design & Development.

The only child of a retired accountant father and mother who works in a bank, Darren was offered the prestigious Integrated Infocomm Scholarship (IIS) by the Infocomm Development Authority of Singapore in his first year at TP. The IIS enables outstanding O-level achievers to pursue infocomm-related diploma and degree courses from polytechnic through to university.

Right from the start, Darren showed himself to be highly analytical and creative. In his second year, Darren worked on a cognitive training game project in collaboration with Professor Kawashima, TP's distinguished advisor, and TP's Centre for Ageing Studies. He then worked on a second project in collaboration with Bright Hill Evergreen Home, where he led a team to develop and design four mini-games to help rehabilitate residents of the home suffering from dementia.

In his final year, Darren interned with Japan's Kumamoto National College of Technology. There, he was part of a team which worked on transforming an operational aircraft which took off like a helicopter, to fly like a plane when in mid-air. Despite having no prior experience in aeronautical and electronic engineering, Darren performed brilliantly.

Darren was also an active student leader who volunteered at polytechnic-wide events, and participated in numerous workshops under the Student Leadership Programme. He was also lead trainer of workshops conducted under the Microsoft Office Student Interest Group, President of the Game Design & Development Special Interest Group and also a Samsung Ambassador who created and launched his own mobile games.

Multi-talented, Darren learnt to play the piano on his own, has a keen interest in naval warfare and battleships, is adept at making armour and weaponry to scale using recycled materials, and also collects dragon toys! While academics take precedence, he believes that one should "work thrice as much as you play, but play as much as you can".

Darren has been accepted to read Computer Science at the National University of Singapore.

Quek Yang Sheng (6th from left) on Award night

TP ALUMNUS Receives
IT Youth Award 2015

What would most people have done if they had less than stellar results through secondary school and ITE? Most would probably have given up on their academic life and focused their attention elsewhere. But for Quek Yang Sheng, his mantra of "Never try, never know" led him to greater success instead in the polytechnic. On 6 March 2015, his determination and sheer hard work paid off handsomely when he received the IT Youth of the Year 2015 Award.

Upon finishing secondary school and ITE with mediocre results, Yang Sheng had joined the workforce after completing National Service, working full-time as a Technical Support Analyst at a local telecommunications company. But he soon realised that his opportunities would be limited based on his academic qualifications, and chose to pursue further studies at the polytechnic at the age of 22. In 2014, the tenacious young man emerged a Gold Medallist for graduating at the top among his cohort in his diploma course, Mobile & Network Services.

He did not stop there. Beyond academics, Yang Sheng's community-mindset saw him leading his peers in community work through the use of IT. In collaboration with the Chinese Development Assistance Council (CDAC), he started a workshop titled Build Your Own Android App. Together with his team; he designed teaching materials and made use of open source software to teach young CDAC beneficiaries the basic skills of building mobile apps without any coding. The objective of the workshop was to help youth discover their talent in IT. Yang Sheng and his team were awarded the Outstanding Achievement Award by Metropolitan YMCA Singapore (MYMCA) during YMCA Youth Empowerment Symposium 2013 for their community efforts.

Yang Sheng has completed his first year of studies in the National University of Singapore's School of Computing and is the recipient of the National Infocomm Scholarship from IDA.

Quek Yang Sheng (right) receiving his award from Mr Chak Kong Soon, FSCS

" The Singapore Computer Society (SCS) incorporated the IT Leader Awards in 1997 to honour individuals who have profoundly shaped the Infocomm & Media (ICM) landscape in Singapore. Specifically, the prestigious IT Youth of the Year is awarded to the youth (aged 25 and below) who has best demonstrated continued commitment to ICM, and has made outstanding personal contributions to ICM in school, an institute of higher learning and/or a community in Singapore. The youth must also have developed a new or added value to an existing ICM-based learning resource, service or application. "

JPMorgan Chase & Co.
Singapore Apprenticeship Program

FROM TEMASEK POLYTECHNIC TO APPRENTICESHIP AT JPMORGAN CHASE & CO.

Lim Hui Qin graduated from Temasek Polytechnic with a Diploma in Business Intelligence & Analytics in 2015. Even though her results were excellent and she easily qualifies for a place in any university, she chose to take up the JPMorgan Chase & Co. Singapore Apprenticeship Program.

ON HER EXPERIENCE IN JP MORGAN

I would say that my experience in the polytechnic prepared me well for the industry. The training I received allowed me to pick up knowledge of the systems used in JP Morgan easily. I was also able to adapt to the corporate culture without much problems due to my earlier internship in another bank.

The culture in JP Morgan is one that is very open and encourages the sharing of experience. We are expected to take charge of our own learning, to ask when we are in doubt. My colleagues and managers are very willing to teach and share their experience and knowledge which I am thankful for. Even though the work I am currently doing is slightly different from what I learnt in my polytechnic course, I find that the polytechnic provided me with a foundation that I am able to build on.

In addition to work, the company also organises a variety of enriching activities for us. They include training that covers topics like effective networking, employee compliance and updated policies, which I have found very useful. We also got to meet the managers from the different departments to hear about their experiences and to learn from them.

The JPMorgan Chase & Co. Singapore Apprenticeship Program was first launched in 2015. The program offers polytechnic graduates real world work experience and exposure to the various businesses within the bank with valuable on-the-job experience and training. Outstanding apprentices are also given the opportunity to continue with the bank during or after university.

ON HER PLANS FOR THE FUTURE

Overall, this apprenticeship has been a good experience. I am constantly learning and building on what I know. I believe the practical experience I have gained will enhance my understanding when I take up a degree in UniSIM next year in the area of Business Intelligence & Analytics.

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"I WOULD SAY THAT MY EXPERIENCE IN THE POLYTECHNIC PREPARED ME WELL FOR THE INDUSTRY."

- Lim Hui Qin
Diploma in Business Intelligence & Analytics