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" Empowering Lives with Smartphone Apps "

Two Awards
at the **Singapore**
Geospatial Challenge 2014

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What We Learned From Building An App for the Geospatial Challenge 2014

Geospatial Challenge 2014

Team RAYC

When my friends Chong Rui Song, Remus Tan Chun Siang, Yvonne Sng Wan Han and I, from the Diploma in Financial Business Informatics, decided to participate in the Singapore Geospatial Challenge 2014, we just plunged in to do our best. You see, our intention was to apply what we had learnt in our course to a real life situation. We also thought it would be great fun to work together on a project.

When we first received our task, we were quite lost and didn't know where or how to begin. We had to create an application to analyse data from the Siglap Constituency. The problem was that the data about the constituency was massive and incomplete.

Faced with this daunting task of making sure that the information was complete, we conducted research to ensure the completeness of the information. We also applied the skills which we gained in our course to create a dashboard using software called *Tableau*, to analyse the data. Taking our idea one step further, we applied the web design skills we had picked up in Year 1 to create a webpage and inserted Google Maps onto it. The whole idea was to make sense of the data to understand the constituency and its needs better.

On 23 July 2014, we were thrilled to be one of the teams that received the Excellence Award in the Poly/ITE category of the Singapore Geospatial Challenge. We also received the Most Popular Showcase Award in the competition.

Following the win, we were delighted to present our app to Dr Maliki Osman, MP for Siglap GRC (Group Representation Constituency), and other key grassroots leaders. We were encouraged when Dr Maliki said that our project was worth developing to benefit the Siglap Constituency further. Today, we are collaborating with the Siglap Constituency to enhance the application as part of our Major Project. We are thankful for the skills that we picked up in our course that have enabled us to be more analytical in managing information. This competition also bonded us as a team. We learnt to leverage on each other's strengths and to complement one another. It was also very encouraging to have supportive lecturers who cheered us on in our endeavours.

Amy Chen Mei Yi
Year 3, Diploma in Financial Business Informatics
(Formerly from CHIJ Katong Convent)

The Singapore Geospatial Challenge is an initiative of the Singapore Land Authority to encourage the use of Geographic Information Science & Technology in schools. This year, students were issued 'Community Challenges' to better understand the community, create geospatial applications that benefit the community, and celebrate the new bonds made and new knowledge gained.

From Student to Technopreneur

"When I joined the Diploma in Business Intelligence & Analytics in 2012 as part of the pioneer batch I was determined to do well in my course and to make the most of my Polytechnic experience. What I didn't expect to discover was a great passion for community service through my CCA involvement at TP and how I could leverage on my IT skills to help the community," said Eddie.
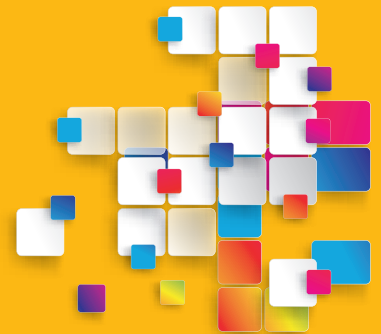
It all started in Year 2 when Eddie, together with two course mates, Koh Chin and Darren Ng Chee Hsien, developed an application called 'Loov' for the Splash Awards Competition 2013 organised by the Singapore Computer Society. Love is a smart application aimed at promoting youth volunteerism by matching users with volunteer opportunities based on preferences such as vicinity and by showing the profiles of fellow volunteers at each site. Eddie, Koh Chin and Darren emerged Champions in the IHL Category of Splash Awards 2013.

Believing that their app has the potential to impact society, the team brought it to the next level by applying for the ACE Start Up Grant by Spring Singapore. They were ecstatic when we were awarded $50,000 to further develop the application and they have been working closely with staff from TP's Entrepreneurship Centre on this vision.

To ensure that the app is relevant and useful to voluntary organisations, the team is in talks with the Singapore National Stroke Association, HCA Hospice Care and the North East Community Development Council on how their app could be used.

In 2014, Eddie, Koh Chin and Darren submitted their app for the Singapore IT Federation Awards 2014. Koh Chin received the Best Presenter Award at the competition. Do look out for this enterprising team as they move forward to improve society with IT.

(Eddie and Koh Chin were formerly from Zhonghua Secondary School, while Darren was from Kuo Chuan Presbyterian Secondary School)

Splash Awards Competition 2013

(From left) : Eddie Chew, Koh Chin and Darren Ng

Koh Chin
Best Presenter Award
SiTF Awards 2014

Excelling in Process & Outcome –
Jody Peh Yi Bin

Lee Kuan Yew Award Recipient at Graduation 2014

Lee Kuan Yew Award – Jody Peh

When Jody Peh completed her O-Level examinations at Tampines Secondary School, she knew her interest was in computers. The youngest of three children, Jody chose to pursue her interests in the Diploma in Cyber & Digital Security and obtained a TP Scholarship so that her family would not have to worry about paying for her polytechnic fees. "I wanted to make use of every opportunity to learn," said Jody.

Indeed, during her three years at TP, Jody grabbed every opportunity to step out of her comfort zone and develop her talents. Not only did she complete a Diploma Plus Programme in Business Fundamentals, she also found time to obtain the Red Hat Certified System Administrator Certification, a well sought-after industry certification.

One of Jody's fondest achievements in TP would be her internship with Interpol in France where she designed an application called, Automated Tool for Abuse Report Management. The application has since increased efficiency and productivity at Interpol. For her major project, Jody developed a mobile application called RemindMe, to help the elderly manage their medical appointments. This app could also be configured to alert uses of upcoming appointments, book a taxi or launch the GPS navigation.

A natural leader, Jody became the Vice-President of the Association of Information Security Professionals in her second year, and took on the appointment of Chairperson of the All 'Bout Security Seminar.

Jody is currently at the Nanyang Technological University, pursuing an integrated Bachelor of Engineering and Master of Science programme in collaboration with Georgia Tech University.

A firm believer that the process is more important than the outcome, Jody is truly an inspiration!

The Lee Kuan Yew Award for Mathematics and Science for polytechnics is awarded to the top technology or computer science graduates in each of the polytechnics. This Award is funded by an honorarium that Minister Lee Kuan Yew received from an overseas speaking engagement. The Award was first presented at the 1993 Temasek Polytechnic graduation ceremony.

Jody (right) was attached to Interpol (International Police Organisation) in France in 2014

A story of

GRIT and

DETERMINATION

Recipient of Ngee Ann Kongsi Most Outstanding Overcomer Award at Graduation 2014

Nurul Nabilah's curved joints came as a surprise to her parents when she was born, and despite going through five financially-sapping surgeries, Nabilah's condition showed little change. Owing to this, Nabilah has limited mobility of her lower limbs and her left arm and uses a wheelchair to move around. Despite these challenges Nabilah has demonstrated true grit and an admirable determination to be as independent as she can and excel at her studies in order to contribute to her family and make a life for herself.

Formerly from Changkat Changi Secondary School, Nabilah joined TP to pursue the Diploma in Mobile & Network Services. During her years at the Polytechnic, Nabilah has been a consistent and diligent student. Despite her physical challenges, Nabilah always strove to put her best effort into her studies, a commendable achievement, given her challenging physical impediments. This earned her the respect of her tutors.

Truly deserving of the Ngee Ann Kongsi Most Outstanding Overcomer Award, Nabilah has risen above her physical and personal challenges to excel at TP. She was attached to the TP-IBM IT Service Management Centre for internship in her final year and then to the IBM Office at Changi Business Park. She impressed people with her professionalism and her service mindset in providing IT solutions to clients. Indeed Nabilah's resilience, fortitude and achievements in the face of life's challenges are commendable and this is an inspiration to all of us.

The Ngee Ann Kongsi Most Outstanding Overcomer Award gives recognition to a student who has demonstrated strong perseverance in overcoming the odds and setbacks in life to complete the course of study with good academic records, and is exemplary in his or her conduct. It is named after the renowned charitable foundation, the Ngee Ann Kongsi, in honour of its generous contribution to TP.

Ngee Ann Kongsi Most Outstanding
Overcomer Award - Nurul Nabilah

Showcasing Industry
Relevant Skills

Students from the Diploma in Cyber & Digital Security and Diploma in Digital Forensics showcased their projects at the IHL (Institutes of Higher Learning) Pavilion at the GovernmentWare 2014 event, held from 23-25 September 2014, at Suntec Convention Centre.

Combining their technical skills, the students were showed three projects they had developed -AIRemote, a mobile app that allows consumers to SMS their lost smartphone via commands to encrypt their photos and files remotely; Echo Me, an application that allows uses to login to a website using a mobile application; and Halina, an application that enables forensic analysis on mobile phone data.

The students had the chance to show their projects to Mr Masagos Zulkifli Bin Masagos Mohamad, Senior Minister of State, Ministry of Home Affairs and Ministry of Foreign Affairs, at the Conference.

GovernmentWare 2014 is an annual event organised by Ministry of Home Affairs (MHA) for local and foreign IT security experts to network and share security knowledge, technologies and challenges among the industries worldwide.

Presentation of Robot Cars at
Annual Ministerial Forum on ICT

On 30 May and 2 June, students from the secondary schools, ITEs and polytechnics participated in a Robotics Workshop at the IDA Labs to build robot cars. Cheryl Tan Wei Ying and Emily Phang Shi Hui, two recent graduates from the Diploma in Financial Business Informatics, along with Marcia Ong Wen Jie from the Diploma in IT, were among the participants at this workshop. The Robotics Workshop was an initiative by IDA to introduce students to technologies that would enable Singapore to become a Smart Nation. On 16 June, Cheryl Tan and Emily Phang had the chance to present their Robot Cars to Ministers from Estonia and Costa Rica who were attending the annual ministerial forum on ICT in Singapore. Each minister received a car from the workshop participants as a sign of how young people are exploring new technologies and exercising creativity.

Left to Right: Emily Phang, IDA representative, Cheryl Tan and Deputy Director/CID, Oh Chin Lock at the Ministerial Forum Welcome Dinner Robotic Cars Presentation

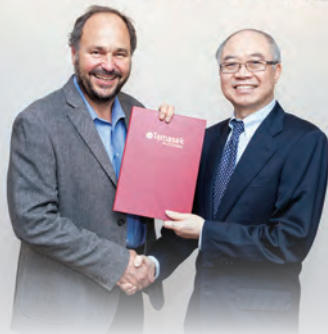Emily Phang building Robotic Cars at the IDA Lab

Before assembly

Robotic Car, "Minotaury", built by Cheryl Tan using both her programming skills and creativity

TP-Pivotal Data Science Academy –
A First in the Region

T P and Pivotal have collaborated to set up one of the first Data Science Academies in the region offering a practical, hands-on programme for training and certifying Data Scientists and Big Data Engineers. Located at the School of Informatics & IT, full-time students taking the diplomas in Big Data Management & Governance and Business Intelligence & Analytics will have the chance to take modules that support their coursework at the Academy. Students will learn how to solve hypothetical and real problems in the areas of big data management and business analytics, and graduate with additional professional certifications that complement their diploma. Similarly, part-time students would also be able to leverage on the opportunities provided by the Data Science Academy to acquire a unique experience and skills.

IBM and RSA Security Operations Centres at
TP Provide Authentic Learning Experience

Viruses, Trojans, Botnets and Hackers – these are some of the dangers which lurk on the Internet, crippling government and business operations, leading to financial losses and causing critical damage. Students from the Diplomas in Cyber & Digital Security and Digital Forensics will now have a chance to hone their skills in keeping organisations safe by interning at the TP-IBM and TP-RSA Security Operations Centres. Students will work alongside and be trained by cyber security professionals at these Centres and receive authentic training to prepare them for the industry.

TP-Cisco Internet of Everything Centre

S ingapore's Smart Nation initiative and TP's Smart Campus project hinge on the skills to connect objects that can sense, communicate and share information over the Internet. TP in collaboration with Cisco has set up the TP-Cisco Internet of Everything (IoE) Centre at the School of Informatics & IT. At this Centre, students will acquire the technical capabilities to develop smart, connected applications. They will also have the chance to work with industry on real projects and acquire skills that are hugely in demand.

Demonstrating Innovative & Problem Solving Skills at Hackathon Competition

Team JA2D, comprising students from the School of Informatics & IT, joined the DMA.Hack 2014 Competition and emerged third after an intense three-day event. Mentored by their lecturer Mr Andrew Tan, Lai Shu Xiang Alex (Financial Business Informatics), Lim Wei Ming (Cyber & Digital Security), Kok Li Wei Jannel (Digital Forensics), Amanda Chan (Interactive Media Informatics) and Damian Chee Tai Ming (Mobile & Network Services) worked on an application called Supernatural Thing (#SNT). The app searches for articles on the Internet related to supernatural sightings and shows them as hot spots on the in-app map of Singapore.

"Through this competition, we realised that our learning goes beyond the Polytechnic. It is only through continuous learning and participation in competitions like this that we really apply what we have learnt to create something of value to society."

Damian Chee Tai Ming
Diploma in Mobile & Network Services
(Formerly from Holy Innocents' High School)

DMA.Hack 2014 is a competition organised by SPH Digital from 14 to 16 November 2014. This three day competition 3-day group hackathon saw IIT's team pit their technical skills against teams from across Asia to devise innovative solutions that involved Search and Content Discovery. Teams were challenged to find new ways to produce, package, distribute and make viral news content that will appeal to digital natives.

Gold Medal in Web Design at the 43rd WorldSkills Singapore

Staying calm in the face of intense competition from the various Institutes of Higher Learning, Amanda Chan from the Diploma in Interactive Media Informatics, maintained her focus and composure to clinch the Gold Medal in the Web Design skill area at the 43rd WorldSkills Singapore competition.

A jubilant Amanda will go on to represent Singapore at the World Finals - dubbed the "Olympics of Skills" – in WorldSkills Sao Paulo 2015, Brazil, where representatives from different countries who are considered the best in their vocational fields will pit their skills against one another.

Formerly from Siglap Secondary School, Amanda is now training very hard for WorldSkills Sao Paulo 2015.
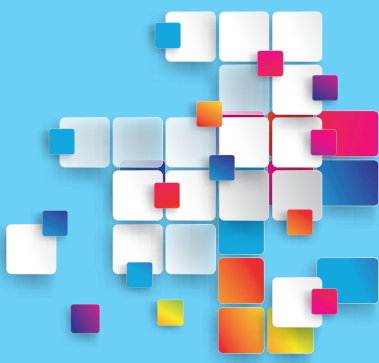

Amanda Chan
Diploma in Interactive Media Informatics

The WorldSkills Competition is a week-long event, held once in two years. It showcases the abilities of the finest young professionals in skilled trades and technologies from 52 member countries.

The School of Informatics & IT always participates in this competition to challenge its students to pit their skills against the best in Singapore and the World, helping them to gain valuable experience and hone their skills in the process.

Konnichiwa from Hitachi Ltd Systems Development Laboratory Japan

Konnichiwa! Tan Jian Hong Denver from the Diploma in Information Technology and Lim Jun Rong Leslie from the Diploma in Business Intelligence & Analytics were attached to the Yokohama Research Laboratory of Hitachi Ltd in Yokohama, Japan from 22 July to 12 October 2014 for their overseas student internship attachment.

During their time there, Denver and Leslie researched and developed a new database system that allows users to perform analytics more efficiently. The project mainly involved creating a predictive database for forecasting, analysing and data visualising purposes.

The overseas internship has allowed both Denver and Leslie to immerse themselves in a different culture, learn to be independent, and acquire new skills.

For Leslie, the opportunity to work on the project was invaluable as he could truly apply what he had learnt in school. Denver summed up their experience best, "I would strongly recommend going overseas for an internship attachment as this is a good chance to experience living independently abroad, as well as work in a renowned company like Hitachi."

(Denver was formerly from Damai Secondary School and Leslie was formerly from ITE College East (Simei))

A Memorable Internship at Kitakyushu National College of Technology

Nur Syakirah Bte Mohd Said from the Diploma in Digital Forensics and Lee Puay Ning Trina from the Diploma in Cyber & Digital Security were attached to the Kitakyushu National College of Technology in Fukuoka, Japan from 18 August to 8 November 2014 for their overseas student internship attachment.

For their internship, Syakirah and Trina worked on developing an Android application that implements steganography to allow messages to be exchanged secretly within a voice conversation, creating a platform for users who wish to share their messages without fear of being eavesdropped on. Other than working on the project, they also presented a poster of their project at the Machine Vision and Intelligence 2014 Conference (MVI2014) at Waseda University in Kitakyushu.

Even though the Japanese students could not converse in English very well, the language barrier did not stop Syakirah and Trina from building a strong bond with their Japanese friends. For Syakirah, interacting with the Japanese people and experiencing their lifestyle was the most memorable aspect of the internship. They have also learnt to be more understanding and respectful of other people's values and beliefs. At the end of the internship, the students left Japan with countless good memories that they will cherish forever, as Syakirah sums it up, "I had the time of my life and I would gladly experience it over and over again."

(Syakirah was from East Spring Secondary School and Trina was from Kuo Chuan Presbyterian Secondary School)

Fifty-four students across the various diplomas from the School of Informatics & IT went on a trip to Hainan, China, from 27 March to 1 April 2014 for an Overseas Community Project.
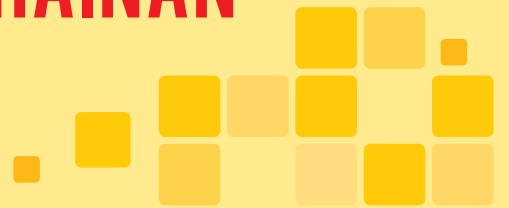
They taught students from Wenchang Longlou Town Central Primary School English, and also shared about Singapore and immersed themselves in the local culture. They also painted and decorated the interior walls of the school building.

Apart from spending time in the village school, the students were also given opportunities to experienced rural village life in the outskirts of Hainan. The local farmers taught the students some farming skills, which was a new experience for most of them having grown up in urban Singapore. Through this experience, students learnt to appreciate and cherish what they have.

The last few days of the trip was spent in Haikou, mainland Hainan. The students visited Qiongshan Middle School and learnt about the school's culture and the local lifestyle. They were given time to interact and converse with the students in the high school. The IIT students also put up a mini performance for the school.

Initially, most of the students had their doubts about the trip – whether they would be able to converse with the locals, or get used to the living conditions in Hainan. However, by the end of the trip, they not only found it fun and exciting, all of them took home some life-changing experiences and great memories.

AN ENRICHING EXPERIENCE IN HAINAN

Pursuing A Passion – The Road Less Travelled

Joining the inaugural batch of students at Yale-NUS College in 2013 was not something that Elson Ong Yi Qiang had envisioned while studying at TP. Having graduated with a Diploma in Financial Business Informatics in 2011, Elson took the road less travelled and applied for the Yale-NUS College and hasn't looked back since.

Prior to the start of his Freshman year in 2013, Elson flew to Yale University for an immersion program with his faculty for a month. That same year, he also went to Bali to study about global fashion and had the invaluable opportunity to watch the Miss World 2013 pageant live as part of the Learning Across Boundaries module. In June 2014, Elson took up a scholarship to study Chinese in Taiwan.

As the valedictorian representing IIT's graduates in 2011, Elson credits his lecturers and classmates who have helped him on his journey and urged his classmates to make a difference by giving back to the community, whether they move on to work or to the university. Today, Elson continues from where he left off at the polytechnic where he was a BP International Mentoring & Tutoring Bronze Service Award recipient. A firm believer in nurturing the next generation, Elson takes time off from his university studies at Yale-NUS College to be actively involved in the Crest Secondary School mentoring programme.

When Elson was the Head of the Outreach Committee for the TP Cliquers, the polytechnic's outreach ambassadors, he grew in confidence and learnt to listen more attentively, adapt to changes and interact more confidently among his peers. Today, Elson is on the Executive Committee for the Yale-NUS Investment Club, and has also taken on the position of Honorary Treasurer for Yale-NUS Represent, a lifestyle magazine.

"Indeed, TP has imbued me with important life-skills and provided me and my peers the opportunity for a holistic education. The diploma that we received from IIT has helped us to gain exposure and explore our abilities so that we are better able to pursue our passions and interests."

Elson Ong Yi Qiang
IIT Alumnus
Gold Medalist, Diploma in Financial Business Informatics (2011)

"The experience gained from working in teams and from giving presentations during my time at IIT had exposed me to working with peers. The programming techniques and technical frameworks had helped me tremendously when I had to learn R, a new programming language, for a Quantitative Reasoning module."

THE
IT PROJECT SHOW

The students and staff of the School of Informatics & IT celebrated the annual IT Project Show on 18 March 2014. This event, showcased innovative projects by the final year students in the fields of Analytics, Interactive Digital Media, Social Apps and IT Security. Developed by students in collaboration with industry partners, the projects were not just a display of technical expertise but also innovation and creativity.

The IT Project Show saw a collaboration with industry partners to host IT-related talks and event launches as well. The Singapore Computer Society Businesses Analytics (BA) Chapter was launched with talks presented on 'Big Data - From Buzz Word to Bridging the Gaps'. The launch of the BA Chapter is a testament to the growth and importance of data analytics for many sectors.

Another concurrent event, The All 'Bout Security Seminar 2014, was held to promote information security in Singapore and to provide an avenue for IT security professionals to share their expertise.

Organised by the final year students from the Diploma in Cyber & Digital Security and Digital Forensics, this event saw IT security professionals sharing their knowledge about cyber security and networking security.

We would be pleased to collaborate with interested parties on projects. Please direct all enquiries and requests for collaboration to:

Mr Oh Chin Lock
Deputy Director/Capability & Industry Development
Tel: 6780 6927
Email : iit@tp.edu.sg

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