

BEHIND THE SCENES

# BIS

ISSUE 01

Learn about a product,  
designed by our students,  
that helps the hearing impaired.  
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FACTS  
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**SUTDents'**  
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**FACES OF SUTD**

MEET THE MARTIAL ARTS EXPONENT,  
CHEERLEADER, HIP-HOP DANCER,  
CLIMBER AND MANY OTHERS! PAGE 6



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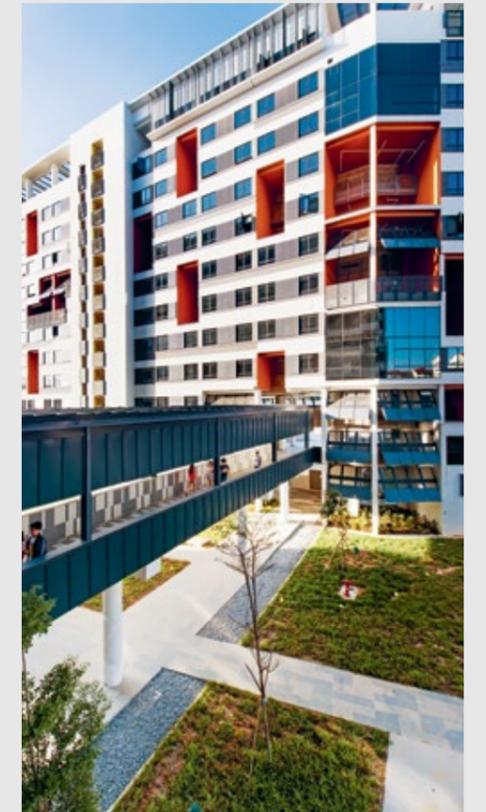
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# TEN COOL FACTS ABOUT SUTD



## 01 EARLY BIRDS WELCOME

Incoming students with their placements secured can opt for early matriculation in January. Apart from trying your hand at Fifth Row activities, you can earn some pocket money through the Student Helper Scheme and even take part in funded research with our faculty through the Undergraduate Research Opportunities Programme (UROP).



## 03 HOME AT 6 DEGREES

There's no separation, only congregation at 6 degrees. Housing all freshmores and other residents, the 6 degrees is only a 2-minute walk away from your cohort classrooms. Our Sports and Recreation Centre is located nearby as well, serving all your calorie-burning heart-thumping needs.



## 02 WELCOME TO THE FAB LAB

Yes, Fab is both Fabrication (officially) and Fabulous (unofficially). Students have full access to this makerspace and its world-class arsenal of 3D printers, CNC milling machines, metal and woodwork machines, and many more. You will often find students enjoying the SUTD experience here (a.k.a. Staying Up Till Dawn) creating virtually anything and realising their ideas.



## 04 START-UP CULTURE

**Fertile start-up ground**  
SUTD Entrepreneurship Centre offers the optimal environment for innovative leaders to develop and realise their business dreams. On top of providing the Incubation Space (an open co-working space), we also create mentoring and networking opportunities for aspiring technopreneurs.

**Up, Up and Away!**  
Our alumni have been busy making their mark in the local start-up scene! Some success stories include (these)abilities, a company designing everyday products for Persons with Disabilities; Codomo, an education start-up imparting design innovation know-how to aspiring youth; and Team Homage, an online platform delivering certified care to meet growing in-house care needs.

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## 05 MOUNT SUTD

Eight daredevil climbers from SUTD Mountaineering Club claimed a virgin peak in Indian Himalayas after conquering 6056m of mountain terrain (in comparison, Mount Everest stands 8848m tall). This makes us the only university in Singapore to 'have a mountain to our name'!



## 06 CNY LIGHT-UP

Since 2012, SUTD students have brightened up the streets of Chinatown with their light installations, ranging from a 108m-long dragon to a 10m-tall, 400kg horse. You might have seen their most recent work for the Year of the Rooster, which involved designing more than 5,500 lanterns depicting the growth from chick to rooster.



## 08 FIFTH ROW ACTIVITIES

Also known as SUTD's co-curricular activities, Fifth Row is a highly precious component of the SUTD experience, so much so that two afternoons are set aside for it. Students can choose from a wide variety of close to 100 different clubs; dance clubs alone have genres spanning from ballroom and contemporary to hip hop and funkstyles.

## 07 GRUMPY THE CAT

Contrary to her namesake, Grumpy appreciates a gentle neck rub like any other kitty. Adopted by the SUTD community, Grumpy has followed us from the temporary Dover premises to our current campus, and resides happily in 6 degrees at Block 57, Level 2. Drop by and say hi or follow her on Facebook!



## 10 MASTERPIECES AT SOMAPAH

As you walk the campus grounds, try locating the four antique Chinese buildings donated by Jackie Chan! Bonus points if you find the 2.7m bronze Beethoven sculpture cast by German artist Markus Lüpertz and the 8-metre Pioneer Wall by Japanese artist Tomoyuki Kambe. SUTD is grateful for the efforts from our international friends which are in line with our vision of nurturing global perspectives and cross-cultural understanding.



## 09 UPPER CHANGI STATION

Right at SUTD's doorstep, the Upper Changi MRT Station turns operational in Oct 2017, providing greater accessibility all over Singapore. In the meantime, hop onto our free shuttle bus that drops by the Expo and Simei MRT stations every 30 minutes.



## A DAY IN SUTD

**Ng Yi Jun Alan**  
Junior  
Dunman High School Alumnus

**0800**  
Rise and shine! Grab my penny board and skate to class.

**0900 - 1100**  
**Humanities, Arts and Social Sciences (HASS): Theorising Society & the Self**  
HASS lessons are usually conducted through roundtable discussions in groups of twenty to thirty students. Today, we discuss Geertz's analogy of culture through his Balinese Cockfight story, drawing amusing comparisons with Psychoanalysis and Chomsky.

**1100 - 1200**  
**Physics II: 10.005 Electromagnetism**  
Cohort class time! We discuss Maxwell equation questions in groups and scribble solutions on whiteboard walls. Today, the professor wraps up the class by revealing the term project - to design and fabricate a power generator using Faraday and Lenz laws!

**1200 - 1300**  
**Lunch @ School Canteen**

**1300 - 1500**  
**Design group work @ Fabrication Lab**  
There's no rest this week with Design module kicking in full gear - our cohort room has already transformed into a garage of prototypes and spare parts. We head down to Fab Lab where some teammates are already toiling away at the laser cutters and bench saw machines, while the rest of us assemble the electronics and physical parts of our prototype.

**1500 - 1700**  
**Advanced Math II: Calculus**  
Back to cohort class discussion in our groups! We head to the whiteboards to tackle calculus challenges with help from our two professors and one teaching assistant.



01 The SUTDio session  
02 Hanging out in the dorm  
03 Led a team to organise Singapore Park(ing) Day with URA  
04 Tchoukball SUNIG team shot



**1700 - 1900**  
**End of class, dinner time!**  
Meet up with my Orientation groupmates from other classes as we skate to Changi City Point shopping mall at Expo MRT for dinner!

**1900 - 2100**  
**SUTDio Fifth Row**  
"Fifth Row" is what we call CCAs in SUTD! SUTDio is the Art, Architecture & Design Fifth Row. Today we are organising a structure building session, where members are given plastic straws and laser cut joints to build straw architecture.

**2100 - SLEEP**  
The night is still young! I usually spend these hours hanging out with friends in the dorm meeting rooms, or during busier times catching up on work and attending project or competition meet-ups till dawn.

**The Culture**  
As with any university, what you get out of SUTD is how much you make out of it. However, one thing that makes SUTD stand out is the plethora of opportunities you are exposed to - there are countless competitions, hackathons, research opportunities and workshops at your fingertips. Here, you are encouraged to embark on opportunities of your choice - learning from what you experience every step of the way.

**Memorable Experiences**  
The end of Design Module was one exhilarating ride. We worked through night after night - barely completing our prototype for the exhibit. We did not dare to test it until it was finally our turn for grading review. We kept the demonstration to the last moment when it worked perfectly, we were taken over with relief and joy and damn right the professors were impressed!

The maze competition for Digital World Module was another heart-racing one - we got into the finals, it was our turn and the timer had already started - but there I was still at the starting line coding away for my eBot. All eyes were on me and I remember I could feel my heart pumping as the clock ticked by. When our eBot got past the main obstacle, my heart nearly leapt and everyone cheered! While it crashed later on, it certainly lived on as a story to be told and an unbelievable memory. We surprisingly took third place too!

**Final Words**  
I can say there are plenty of these moments - and what I experienced might not be what you will experience. But you will create yours - including those sleepless nights for projects, hanging out with friends and moments of 'yes!' from achieving the things you pursue.

# CULTIVATE A RICH CAMPUS LIFE WITH FIFTH ROW!

The fun, the laughter and the sweat of our SUTDents. Don't forget to follow us @sutdsg for a glimpse of our campus life.



**@dancederivativez**  
In China ALP with no studio, big speaker or good lighting, but nothing gonna stop us from dancing. Miss y'all in SG. (missing Russell in this pic)



**@sutdtouch**  
Woke up early for a great exfoliation session



**@wearesutdio**  
Silk screen is a printing technique using mesh to transfer colorful paint to fabric and creates beautiful stencils patterns.



**@sutdclimbers**  
Climbers have been busy climbing up the GPA Ladder. Happy holidays everyone.  
#gpa5isadream #sutd #sutdfifthrow #sutdclimbers #climbboolder #climbers #climbing #bouldering #ca #climbasia #groundup



**@evclub\_sutd**  
Check out our #shellecomarathon 2017 team all raring to have a taste of the track! Thanks to all those who helped turn the E17 car into a reality.



**@sutdgreenprint**  
WE'VE MADE LEGACY, SUTD. Today we will be recycling cardboard filling up bins sized up to 1140L and plastics that of 240L.



**@fluence\_sutd**  
When you lose yi qing in a group shot...here's to new beginnings for Fluence!!!



**@sutdjudo**  
#bromance after training again



**@esports**  
Congratulations to SUTD Team 1 for winning Champions for the IVGF 2017 Overwatch Competition!



**@sutdballroom**  
In motion. The six pairs preparing hard for competition this March #sutdfifthrow



**@sutdultimate**  
When you don't plan to wear the same jersey for training but it still happens heuheuheu



**@vbballsutd**  
Focus is key #sutd5throw #seeingdouble



**@sutdvertex**  
First freshies training!!! Whoo!! Did everyone have fun playing scissors paper stone? Thanks to @teamwildcards for coming down to help out! And see y'all at next training, freshies!! Everyone must go for supper, okay? #sutdfifthrow



**@sutdmuaythai**  
Hanging sandbag is here!!!!



**@sutdscratch**  
Are u ready to have some good time? Get yo tickets now #sutdweek7



## LIGHTING UP THE COMMUNITY AT PHONG THANH

**Adam Bin Ilyas**  
Sophomore  
Meridian Junior College Alumnus

Project Radiate is an annual overseas service learning trip to Vietnam where SUTDents work together with EcoVietnam Group, a non-profit organisation that promotes voluntary service and sustainable community development. 25 of us went on a 2-week trip to Phong Thanh Commune in January 2017, with the goal to introduce STEM (Science, Technology, Engineering, and Mathematics) to the children there.

In 2016, Project Radiate installed a solar panel system for the community centre. We continued their efforts by installing solar lamps, setting up an eco-garden with a sprinkler system and building a mobile library to deliver books around the commune.

At school, we also conducted hands-on lessons like canvas painting and making rubber band powered cars at a school. The students enjoyed this so much that their friends from other classes would stay back to 'gatecrash' our sessions! They would also eagerly volunteer to help us cut wood and decorate the eco-garden, and join us every evening for fun and games.

Project Radiate stands out to me because we are given the opportunity to plan and execute a meaningful project, applying our engineering and design thinking skills in the process. This life-changing experience is the reason why I am choosing to return and lead Project Radiate 2018.

- 01 Installing solar lamps
- 02 Eco-garden built by Rotaract@SUTD
- 03 Canvas painting session with the village kids
- 04 Having a fun time with the kids
- 05 Teaching science in the local school



**Rotaract@SUTD**  
Rotaract@SUTD was founded in 2012 by like-minded individuals with the passion to serve the community, while promoting international understanding through friendship and service. As part of its International Service Projects, the club organises annual trips to Vietnam (Project Radiate) and Laos (Project Leggolaos). These projects allow members to better understand the problems faced by these communities and provide solutions to improve their circumstances. Rotaract@SUTD also hosts Newton's Cradle, a monthly series of hands-on workshops sponsored by the MIT Club of Singapore where underprivileged children learn about science and technology.



## MAKING A DIFFERENCE THROUGH DESIGN

**Yi Jiayu**  
Senior  
Raffles Institution Alumnus

As I put the finishing touches onto this design project, it not only marks the end of a sleepless week but also the end of one of the wildest courses I have ever taken in school. 3.007 Introduction to Design puts students through a pressure cooker like no other. Disparate personalities are thrown together and immersed in a hundred different, contradicting mindsets and ways to design and faced with a relentless succession of deadlines, each more demanding than the last. And yet, I would not have chosen to spend this term doing anything else.

Another aspect of this project which was a real eye opener was the way it made us think of how the world could be made better with its theme 'A Better World'. I learnt for the first time about how a hearing impaired person experiences life and about the uniqueness of the community. More importantly, not because we had to, but as part of the process of identifying a problem we wanted to solve and learning about it on our own.

As we worked together with people beyond the campus, it felt more than just a school project, as we could actually feel like we were helping people. I believe that is what gave us the strength to overcome the innumerable challenges we faced over this term.

I truly hope that our project makes a difference, no matter how infinitesimal, because it demonstrates how the combination of design and drive can make a better world.

Design is literally everywhere at SUTD, with design experiences incorporated throughout the SUTD curriculum. At Freshmore year, **3.007 Introduction to Design** introduces you to the concepts of design at a variety of scales and through both engineering and architectural disciplines. You will also be exposed to core technology and design themes including principles, design processes, modes of thinking and analysis, relationships between form, space, structure and materiality, and social and cultural aspects of design.

## PERI: HELPING THE HEARING IMPAIRED

★ National Winner of James Dyson Award 2017

### SOUND LOCALISATION

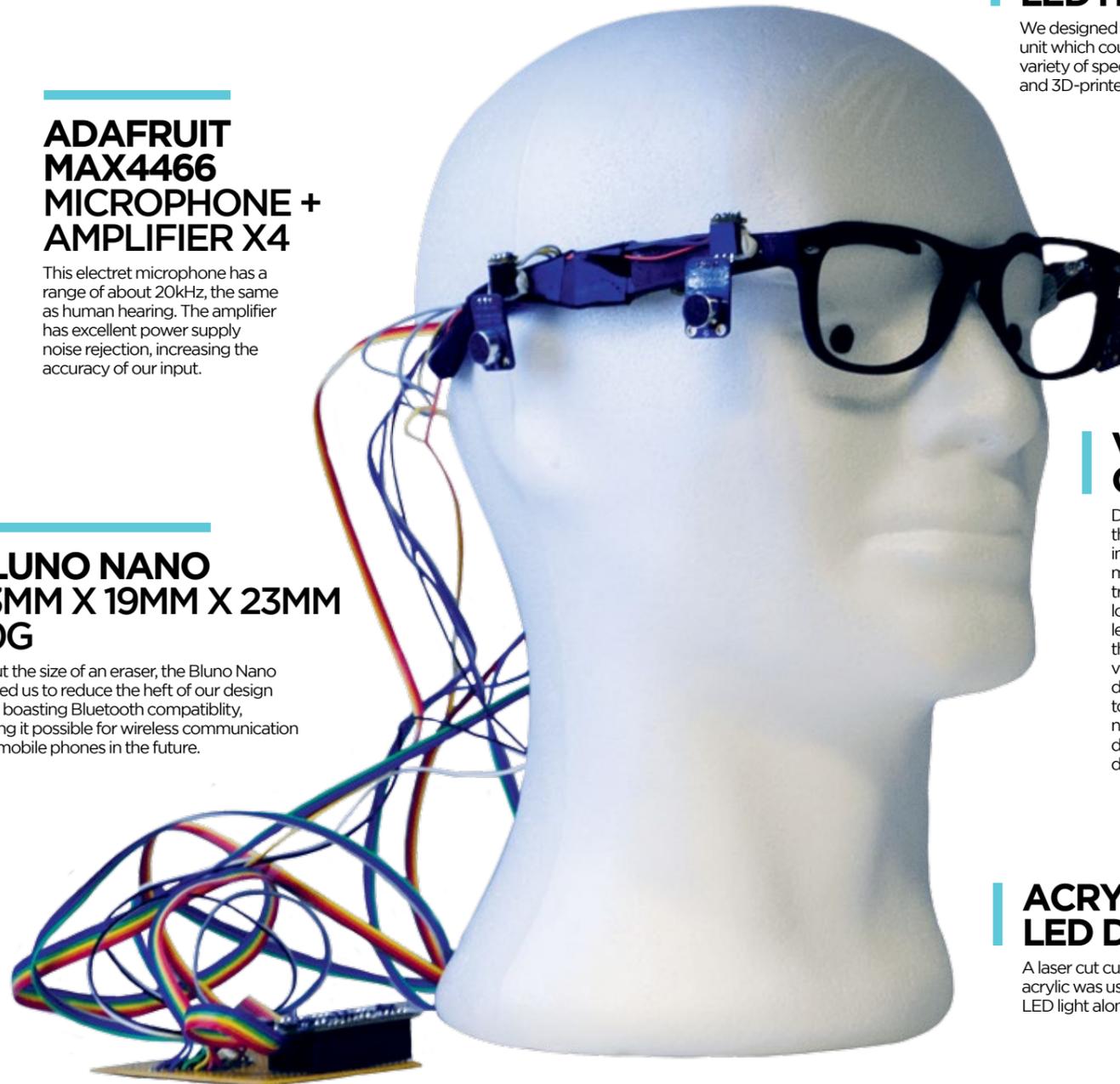
We programmed the microcontroller with an algorithm to use the differences in volume picked up by each microphone to determine the direction which sounds come from.

### ADAFRUIT MAX4466 MICROPHONE + AMPLIFIER X4

This electret microphone has a range of about 20kHz, the same as human hearing. The amplifier has excellent power supply noise rejection, increasing the accuracy of our input.

### BLUNO NANO 53MM X 19MM X 23MM 20G

About the size of an eraser, the Bluno Nano allowed us to reduce the heft of our design while boasting Bluetooth compatibility, making it possible for wireless communication with mobile phones in the future.



### CUSTOM FABRICATED LED HOUSING

We designed an LED housing unit which could be attached to a variety of spectacle frame styles and 3D-printed it.

### VISUAL OUTPUT

Depending on the direction of incident sound, the microcontroller triggers an LED located at either the left or right edge of the wearer's field of vision. The LED is diffused along a path to create a subtle yet noticeable signal that does not alarm nor distract the wearer.

### ACRYLIC LED DIFFUSER

A laser cut curved piece of acrylic was used to diffuse the LED light along the lens rim.

We rely almost exclusively on our sense of sound to keep track of things beyond our field of vision, so a hearing impaired individual may face delays or difficulties in responding to danger and opportunities around him. We wanted to design a product which improves situational awareness for the hearing impaired, especially in unfamiliar and dynamic environments. Thus we created PERI.

**PERI is an attachment that can be strapped to spectacles that will help the hearing impaired visualise sound by using flashing light cues, via flashing RGB LEDs that will blink in patterns according to the sound.**



## RESEARCH OPPORTUNITIES RIGHT FROM DAY ONE

**Pavithren S/o V S Pakianathan (left)**  
Senior  
Temasek Polytechnic Alumnus  
**Ardy Samsir Kartolo (right)**  
Senior  
Tampines Junior College Alumnus

We decided to embark on the SUTD-MIT International Design Centre funded UROP to work towards realising the design of PERI we came up with during 3.007. Initially we wanted to optimise the algorithm to perform sound localisation and recognition but after seeking advice from our faculty and researcher mentors, we decided to focus on the use of a single RGB and its ability to help users perceive information about sound.

As our user study involved human subjects, all our team members had to be certified by the Collaborative Institutional Training Initiative (CITI) (which provides research ethics education) to conduct research on human subjects. Thereafter, our user study had to be approved by the university's Institutional Review Board.

About 30 participants from hearing and non-hearing groups were recruited for the user study and we submitted our findings in a short paper titled "Towards one-pixel-displays for sound information visualisation". In December 2016, Ardy and I flew to Launceston, Tasmania to present our paper at the 28th Australian Conference on Human-Computer Interaction (HCI). As undergraduates, presenting our work to a huge group of researchers and academics was a unique experience. Networking with students, researchers and faculty from all over the world was a once in a lifetime opportunity.

At SUTD, you can participate in research from day one, with ready access to funding and faculty mentors through the **Undergraduate Research Opportunities Programme (UROP)**.



# A TRIP TO THE BIRTHPLACE OF THE RENAISSANCE

**Abhipsa Pal**  
Junior  
Catholic Junior College Alumnus

Each year, HASS faculty, Dr Pablo Di Leo leads a team of students to Florence, Italy, to explore the history of Renaissance architecture and urban design. This provides the students with the intellectual and philosophical background needed to participate as protagonists in the debate that shape the world of architecture.

The field trip to Florence was a good opportunity to study the history and philosophy of Renaissance architecture in one of the capitals of the Italian Renaissance. We were hosted by Istituto Europeo.

In this programme, we were introduced to the Renaissance architectural movement in the classroom, as well as conducted physical surveys of architecture from the Classical to the Renaissance era. Dr Di Leo had really in-depth knowledge and the lessons were interactive as city walks were held weekly to explore Florence. Trips to places like Venice, Siena and Chianti (known for their wine) were also organised. On our free weekends, we also visited places like Bologna and Pisa on our own.



04



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02



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- 01 San Miniato al Monte
- 02 Exterior of Siena Cathedral at night
- 03 Our day trip around Venice on the gondola
- 04 A top view of San Gimignano in Siena

One of my favourite parts of the trip was visiting the cathedrals, the Gothic style made each structure majestic with a peaceful and serene interior. My apartment was near the Florence Cathedral and the mind blowing thing about the iconic dome was that in the 1400s, they had managed to build a dome nearly 150 feet across, and managed to mount it 180 feet above the ground, atop the existing walls. Filippo Brunelleschi promised to build not one but two domes, one nested inside the other, without elaborate and expensive scaffolding, an idea that was beyond conventional methods.

Being at the forefront of cultural and social revolutions of the Renaissance itself, Florence is an inspiring city to be in.



# WHEN TECH MEETS ART

**Dr James Rowlins**  
Senior Lecturer  
Humanities, Arts and Social Sciences (HASS)

Dr Rowlins left his native UK to study in Paris, France, where he fell in love with French cinema. His passion for the "Seventh Art" then took him to Los Angeles, where he began to make short films while earning a doctorate in French & Film Studies at the University of Southern California.

All SUTD students take HASS subjects, covering disciplines such as philosophy, fine arts, sociology and economics. These help develop critical thinking and an awareness of the social role and impact of technology and design innovations.

## Tech + Art = Film Studies @ SUTD

What does it mean to study film? Aren't movies for switching off and zoning out? Think again. Film Studies at SUTD takes you on a journey like no other. You learn about the fascinating history of cinema that is first and foremost one of technological discovery, beginning with the invention of optical illusions and photography over 150 years ago, followed by sound, colour, and more recently, digital, CGI, 3D and VR. You also learn to critique films - beyond saying if you thought a movie was okay, or not, what exactly did you enjoy and what big ideas does the film explore?

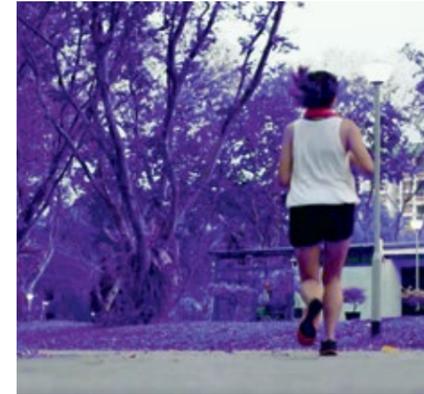
Last but not least, you get to make movies. Filmmaking is an art, but it is one that relies on sophisticated technical and IT postproduction (editing) skills. Students often say the filmmaking task is one of the most memorable and bonding activities they participate in at SUTD. To be successful, you will need all the skillsets and resourcefulness honed by your pillar subjects. In Film I, you are given free rein to indulge your creative selves and to learn the basics. In Film II, you use advanced 6K RED movie cameras (the kind used to film Hollywood blockbusters such as The Hobbit) to make professional film. The semester ends with the SUTD Screening and Awards evening - our very own Oscars! Films compete with each other for prizes such as Best Cinematography, Screenplay, and of course, Best Film.



**Man Up, Girl!**  
Inspired by Chaplin's Modern Time, this film aims to highlight various gender stereotypes.



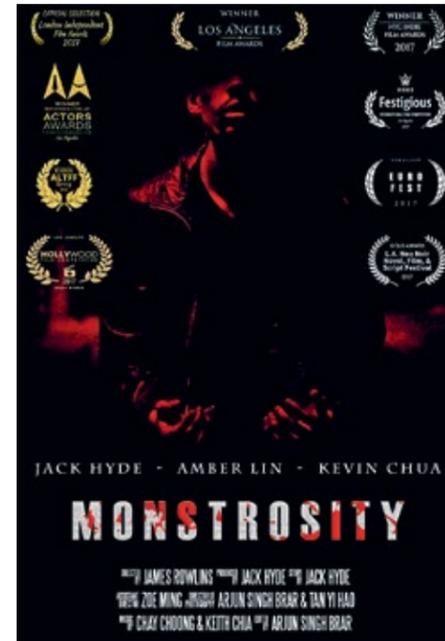
**Devoid**  
A dark tale of the digital-age 'enemy within'.



**Soliloquy**  
An exploration of the thin barrier between reality and imagination.



**The Web**  
Life can be full of pressure and anxiety. To see its true beauty, we have to break free from the 'web'.



“To truly know the mind of a criminal, you have to become one.”

★ Won Best Indie Film at the Los Angeles Film Awards and an “Honorable Mention” for Cinematography and Acting.

“Monstrosity” is a modern-day retelling of the Russian classic “Crime & Punishment”, set in Singapore and filmed at SUTD.

This success, along with nine official film festival selections, is extraordinary given that SUTD is competing against movies made by industry professionals with big budgets.

# A SUMMER WORTH REMEMBERING



Every summer, SUTDents fly the nest to explore the world of possibilities out there. Some travel to a foreign country for academic and cultural exchange, or intern at their dream company. Others put their design ideas to the test, give back to the community or participate in international competitions.



## AUSTRIA

- Internship at Rheinmetall MAN Military Vehicles GmbH (Part of DSTA internship)



## BRAZIL

- Internship at Embraer



## CAMBODIA

- Internship at Golden West Humanitarian Foundation



## CHINA

- Asian Leadership Programme at Zhejiang University
- Beihang International Summer School at Beihang University
- International Summer School at Zhejiang University, School of Management
- Sino-Singapore Undergraduate Exchange
- The International Design Contest (IDC) Robocon 2017
- Internship at Proqod Pte Ltd



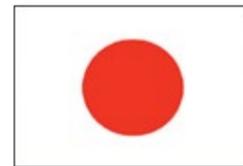
## FINLAND

- The International Seminar on Technology for Sustainability 2017



## ITALY

- Entrepreneurship Program at European Innovation Academy



## JAPAN

- Engineering Design Project at Tokyo Institute of Technology
- Japan Seminar on Technology for Sustainability 2017
- Internship at You System Co Ltd



## NETHERLANDS

- CuriousU International Summer School at University of Twente



## PORTUGAL

- Entrepreneurship Program at European Innovation Academy
- Internship at Climber Revenue Strategy and Landing.jobs



## SINGAPORE

Those who stayed in Singapore also kept busy, by interning in their dream companies or contributing to various events such as the Singapore Night Festival and co-organising the CRUX Deep Water Solo Competition.



## SOUTH KOREA

- Hanyang International Summer School at Hanyang University
- International Summer School at Yonsei University
- International Summer Semester at Sungkyunkwan University
- KAIST International Summer School at Korea Advanced Institute of Science and Technology



## UNITED KINGDOM

- English Literature Summer School at Oxford University
- History, Politics & Society Summer School at Oxford University



## UNITED STATES OF AMERICA

- Global Leadership Programme at Stanford University
- Global Leadership Programme at University of California, Berkeley
- Internship at Wavemaker



# GLOBAL LEADERSHIP PROGRAMME

Every summer, our students have the opportunity to apply for an exchange to Stanford University and the University of California, Berkeley under the Global Leadership Programme (GLP).



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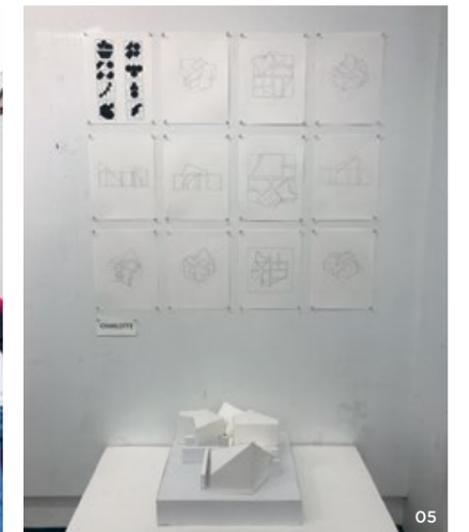
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## TOP 3 MOST MEMORABLE MOMENTS IN BERKELEY

**Phang Li Wen Charlotte**  
Sophomore  
Dunman High School Alumnus

In the Global Leadership Programme (GLP), I had the privilege to attend summer courses at the University of California, Berkeley for eight weeks. It has certainly been an eye-opener for me as I was not only exposed to foreign educational curriculum, but also to the culture and way of life!

We got to meet many new people from all around the world as we were living in an international dorm.

We also went on several field trips to San Francisco with our professor and course mates to learn more about different works of famous architects that we would otherwise, only see in books or over the net.

### Architecture course

We were tasked to accomplish three projects over the course of eight weeks. It was an interesting experience and the course offered a lot of flexibility for creative learning. It was a pretty hectic period, there were some days that we had to stay back in studio for an entire night just to finish our models! However, the satisfaction derived and bonds formed with our studio mates made the experience worth it.

### Food

We mainly had our meals in our residence (International House). I-House meals are served buffet style with salad and pasta bars, daily soup, various entrees and desserts. Menus change daily to expose us to different cuisines.

On weekends, we tried different types of food such as Mexican and Italian outside of school. Some of us also travelled to wineries for wine-tasting.

### Travelling

We would make the effort to travel almost every weekend. Work hard and play hard was our motto for the trip! Our activities include shopping, road tripping, hiking and many more. We visited many places like Yosemite, Zion, Oakland, Las Vegas and San Francisco.

During our road trip, we would stop by various scenic locations and the experience was wonderful.

The summer exchange programme at UC Berkeley had been an awesome and memorable experience. I was exposed to an education system that offers a lot of flexibility and it helped me discover my strengths and weaknesses at my first attempt in the architectural sphere. I also had the privilege of learning about the different cultures in the States and experienced nature frequently during my travels. This is something that I would never get to experience in Singapore so thank you SUTD for offering me such an opportunity!

- 01 An overview of Berkeley campus from my dorm
- 02 One of our pit stops during the road trip
- 03 Exploring different works of famous architects in San Francisco
- 04 Our contingent outside the International House
- 05 My sketches and model

# WHAT TO DO IN USA?

Here are some interesting experiences that are highly recommended by SUTDents that you should check out!



## AT&T BASEBALL PARK

Down to the wire, dramatic game between San Francisco Giants vs San Diego Padres. Very fulfilling to experience American sports, especially for baseball enthusiasts.

**Ashwin Venkatram**  
Sophomore



## IN-N-OUT BURGER

If you don't try an In-N-Out Burger while in California then you haven't truly visited California.



**Anwesh Biswas**  
Sophomore



## SANTA CRUZ BEACH BOARDWALK

A must-visit for those who love amusement parks and the beach. Get ready to spend at least half a day here to truly explore the whole region (and remember to pack sunscreen).



## PALACE OF THE FINE ARTS

It felt like we stepped into another world of Beaux-Arts form of Architecture. The Palace of Fine Arts was originally part of the Panama-Pacific International Exhibition, a fair that was created to show the world's finest technology and showcase the city's recovery from the 1906 earthquake.

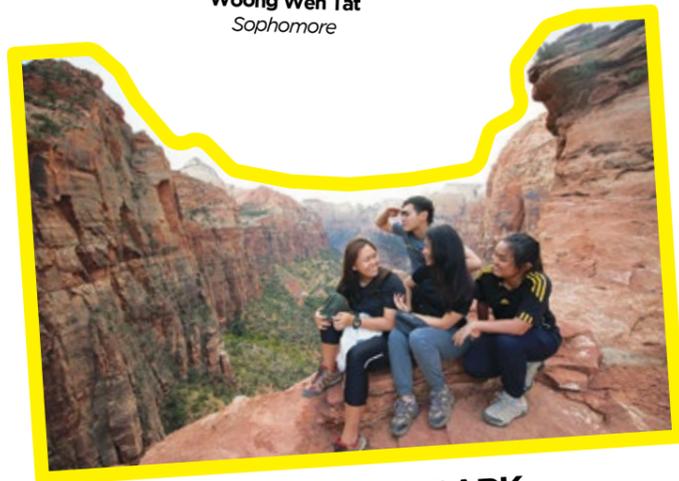
**Bharat Atul Desai**  
Sophomore



## OUTDOOR THEATRE, JOHN HINKEL PARK

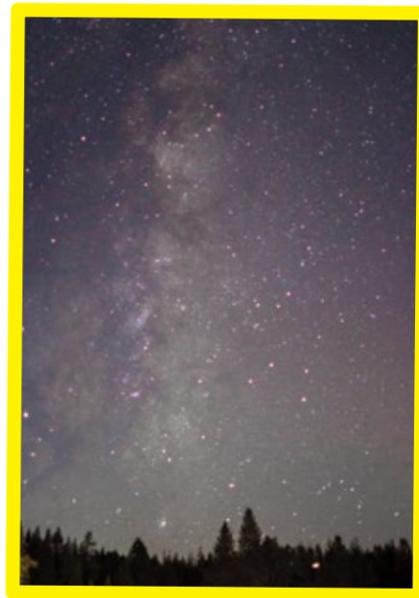
A hidden gem near Berkeley, I was fortunate enough to catch Inferno Theatre's rendition of A Midsummer's Night Dream there, which they try to host every summer at the park. The show was witty and amusing, but that isn't the only amazing thing there. Along the way to the park from the bus stop, you will pass by a beautiful walkway with flowers and poems. Yes, real poems.

**Woong Wen Tat**  
Sophomore



## ZION NATIONAL PARK

If you have allocated some budget for road tripping, consider flying down to Las Vegas followed by a drive down to Utah to visit Zion National Park. While Observation Point covers a bird's eye view of the canyon, the Canyon Outlook allows us to immerse ourselves at mid height. Last but not the least, the Narrows is definitely not to be missed, imagine walking through a valley, having 50m tall walls of red rocks surrounding you with water up to your waist-level, I guarantee you will regret missing such an experience!



## YOSEMITE NATIONAL PARK

One of the most visited National Parks in the US, and it's just a 3 hours drive away from campus, a perfect mix of green and blue - definitely not to be missed out! Oh! Not to forget the starry starry night sky coupled with the Milky Way visible to our naked eyes, from a dark place on a day with clear skies!



**Kady Ho Wei Na**  
Sophomore



**Lim Jing Yun**  
Sophomore

## RIDE IN A TESLA

Once you run out of money to rent cars, take the Stanford shuttle to Stanford Shopping Centre's Tesla. Then, sit in one of the cars on display and squeal in excitement. A Tesla employee should approach you with an offer of a free ride.

## CYCLING ACROSS THE GOLDEN GATE BRIDGE

The best way to appreciate this feat of engineering is to cycle across it. Enjoy the really strong (and cold!) wind whilst making sure your phone doesn't get blown away.



## BEAR STATUE

Oski the bear is the official mascot of UC Berkeley and thus explains the different bear statues located all around campus. It can be quite fun to find all the statues and is also a great way to explore the campus. This one below is just outside the Memorial Stadium.

**Shruti Sriram**  
Sophomore



**Waterproof Bag**

California, West Coast of US is all about the bright sunny beaches surrounded by the deep blue Pacific Ocean. Most activities around the region include getting all sandy and wet. This is where my ocean pack comes in handy, keeping my phone and essential valuables from getting soaked during activities.



**GoPro**

No one should ever leave their country without some sort of device to capture memories. My GoPro has served me well in my 1.5 months backpacking trip in Europe previously; allowing me to capture extremely high quality footages and photos, yet small enough to fit in a pocket. Thus, it was my definite must bring for the trip.



**Dance Shoes**

I wear my black Chuck Taylors Converse shoes for almost everything. Furthermore, it doubles up as dance shoes for dance jams and events.



**Laptop**

A definite must for every student going for a summer programme. Apart from the obvious everyday schoolwork that must be done on a computer, my laptop serves as a media hub for me to manage my photos and videos as well as keep me entertained.



**Milo Sachets**

Milo Peng is an everyday routine for me in Singapore, so I decided to bring over a few sachets for comfort as well as to share with new friends.



**Travel Belt**

This is to keep my spare cash safe and concealed while walking along unfamiliar streets.



**Portable Charger**

This was for all the times that I would have to travel off the grid. As my reliable Xiaomi 20000mAh power bank stores sufficient juice to act as my temporary wall socket, supplying enough electricity for my devices to run for 3 days on a single charge.

**WHAT'S IN MY LUGGAGE?**

**Goh Yu Jin**  
Sophomore  
Catholic Junior College Alumnus

Just before leaving Singapore for the States, the preparation to stay overseas for two entire months was quite a challenge. Taking into consideration the impracticality of lugging a huge suitcase around, I only brought what I felt was necessary. Here are my 10 essential items.



**Formal Attire**

Just before I left, I discovered that Stanford University organises events such as Homecoming Dance and Prom Night for summer sessions. Hence, I brought along my formal attire just in case everyone else was planning to go well-dressed.



**Headphones**

I decided to bring my headphones for a daily dose of music and occasional virtual mixing on my laptop.



**Multiplug**

The lack of wall sockets was a common problem I faced everywhere when it comes to travelling. Thus, I brought over a portable multiplug so that I wouldn't ever have any competition in charging my electronic devices over summer.

**ASIAN LEADERSHIP PROGRAMME**

SUTD's collaboration with Zhejiang University (ZJU) includes a 13-week exchange where students work on hands-on projects revolving around a number of design themes, with interaction and engagement activities in Hangzhou. Students will also have a chance to interact with companies. This summer, 98 students headed to ZJU for the Asian Leadership Programme (ALP).



Long Jing Shan, Hangzhou China | Photo from Tan Jing Ren

# ALP THEMES

## SMART BEAUTY

"Smart Beauty" is about exploring the beauty of a smart nation. Through this theme, students explored the possibilities of the future world from the following aspects.

### FURNITURE DESIGN

Furniture design is the designing of our lifestyle. Students looked into the combination of different materials and integration of smart technologies (digital visual, audio, smell, etc.) to create furniture for the future.

### SMART OFFICE

This subgroup theme concentrated on the future of the office environment; ways to work smarter using modern working styles and methods. Students used their design skills and smart technologies to build prototypes of smart office products.

## SCREENS & BEYOND: DESIGN OF CROSS-OBJECTS USER INTERFACE

This theme aimed to design and implement a new user interface to guide users in the operation of any electronic equipment simply by making physical contact.

## HEALTHY & INTELLIGENT LIGHT SYSTEM

Designed for primary and middle school students in China, the group created an intelligent light system for a healthier learning environment.

## RELATION ANALYSIS BASED ON GRAPH VISUALISATION

Graph visualisation consists of three components - network layout, visual mapping and user interaction. This theme aims to design and implement graph-based relation mining and visualisation system using real data, applications and open-source graph visualisation engines.

## AUGMENTED HUMAN

The Augmented Human group worked on creating the next generation of human-computer interfaces which act as natural extensions of our body and mind. This aims to enhance human capabilities and improve our well-being.

## SMART WARDROBE & FASHION RECOMMENDATION SYSTEM

A multi-function app, it helps users in the daily management and pairing of clothing with features for cataloguing, virtual try-on, social networking and more.

## LANDSCAPE PLANNING & DESIGN

### BACK TO COUNTRY LIFE

This theme incorporated the beauty of the natural landscape to create a tranquil garden that provides some respite for city dwellers.

### ZEN GARDEN

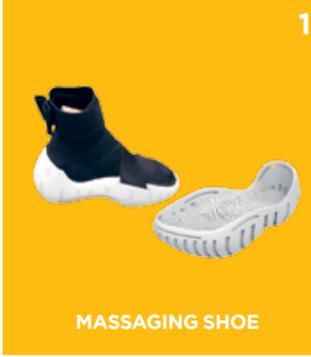
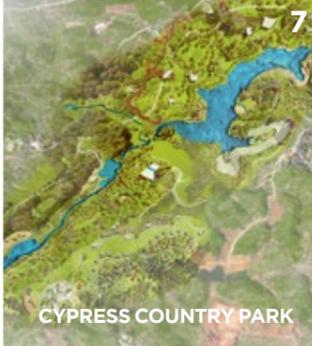
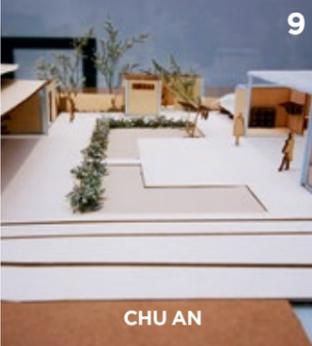
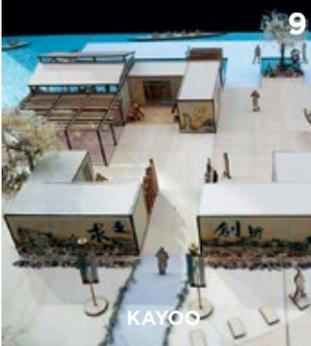
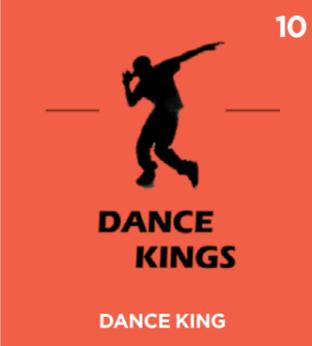
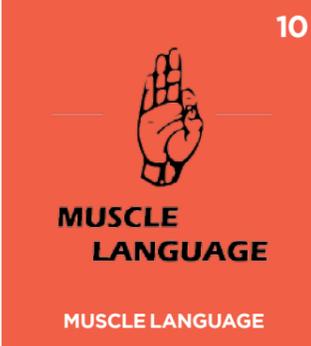
The small garden was designed with the Buddhism doctrine in mind, to create a serene space for meditation.

## CHINESE URBAN & ARCHITECTURAL ENVIRONMENT

Students worked on a green architectural design, based on their understanding of the relationship between design, society, technology and environment.

## MUSCLE COMPUTER INTERFACE

To provide a seamless interaction between man and machines with the use of muscle sensors, known as Muscle Computer Interface (muCI).

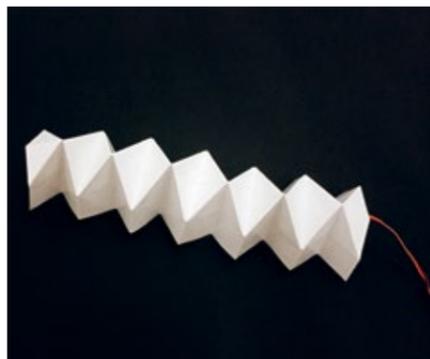
ALP PROJECTS			
 CALMING LIGHTS	 MASSAGING SHOE	 MOBILE PURIFIER	
 RESIN TABLE	 JANUS	 ITEMS	 BABYMAT
 DRUM APP	 DROB-E	 HAILS	 CYPRESS COUNTRY PARK
 DATAVIS	 CHU AN	 KAYOO	 THE DOCK
 CASCADE	 DANCE KING	 MUSCLE LANGUAGE	 THE SENTINEL



This place served Mexican food at 15RMB. We visited it frequently.



Ofo bikes are abundant in China and we used it to get around places.



Origami robot that we built during the first month of ALP.



The beautiful Shanghai skyline at night.



We played a lot of pool during our free time.



## MY ALP MOMENTS

**Tan Jing Ren**  
Sophomore

*Temasek Junior College Alumnus*

13 weeks have passed in the blink of an eye. There are certainly things and experiences from Hangzhou that I will miss dearly. The convenience of wai mai (food delivery), Alipay, ofo, Taobao, and the amazing heilongtang will be missed. There were countless memorable experiences and I will definitely treasure the friendships made and lessons learnt these past three months. Till next time, Hangzhou.



This was shot during a visit to the Hangzhou Hushu School, where we helped during their Sports Day.



Xihu, one of the many attractions in Hangzhou.



That time we conquered a mountain.



One of the treasures of Hangzhou, a cup of Heilongtang.



After classes, we would sometimes head to the courts in ZJU for a game of basketball.



## WELCOME TO CYPRESS COUNTRY PARK

**Tan Hui Yin**

Sophomore

*National Junior College Alumnus*

Working on a landscape project for ALP while in Hangzhou, which is well-known for its exquisite and glorious gardens, was probably the most apt. Excursions to different gardens and attractions every week was one of my highlights of ALP. It allowed us to understand the nature of classic Chinese gardens and the design behind it. It was captivating to learn the concepts employed as it seemed like many of them are different from conventional ideas of beauty. For instance, one of the techniques used in the placement of buildings or special features in a garden was intentional hiding, which was to block the feature behind other objects and slowly reveal them as the person changes his perspective.

- 01 Theme excursion to Xihu
- 02 Site model of our project
- 03 Close-up of our model
- 04 Render of the life-size Chinese chess in the kids segment of the park
- 05 Personal road trip to my favourite watertown, Wuzhen



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The ideation process was really fun as the land area was 35 hectares and it gave us the opportunity to bring ideas from Singapore to China and also incorporate new concepts that we learnt there. We intended for our countryside park to not only be aesthetically appealing but also practical and suitable for all ages to unwind over the weekends. We aimed to minimise the use of man-made construction such that park-goers will feel a significant difference in the ambience of the bustling city and our park. Even though the workload got pretty heavy towards the end, the cohesiveness of our group and the fun and laughter we all had together truly made the project an enjoyable one and I am very thankful for that!



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# OPERATING ELECTRONIC EQUIPMENT WITH EASE

**Surabhi Athalye**  
Sophomore  
Global Indian International School Alumnus

Those souls who don't speak a word of Chinese, and the poor ones who are vegetarian can probably understand that I was very sceptical about the 3-month long China trip that I undertook for ALP. To my surprise, those three months were some of the most enriching ones of my life, primarily because of the project I worked on.

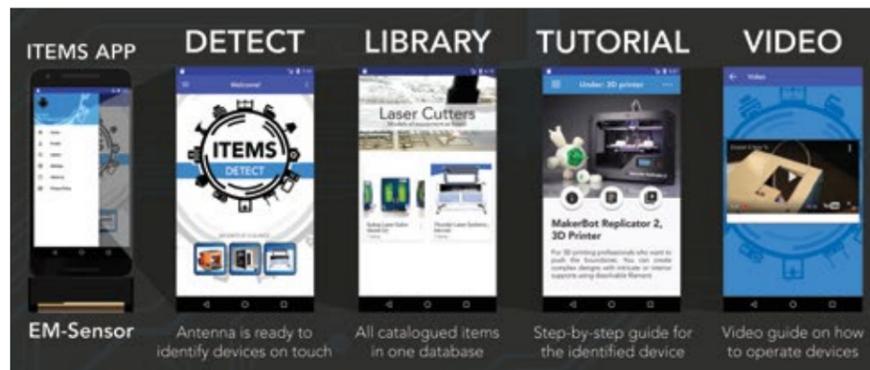
Our team's idea was to develop a device identification technology, called EM-Sense, along with a unique application to use it. After brainstorming, the idea of having a tutorial app to use complex machines surfaced. Tutorials would be triggered upon touching the machines, by utilising EM-Sense, the principle that electrical devices can be uniquely identified by their continuously emitted distinct electromagnetic (EM) radiation. Our project had three segments - implementing the EM-Sense (which my sub-team was responsible for), building our prototype (a phone attachment), and creating the tutorial app.

Despite encountering several techniques and concepts that were out of our scope to execute, we were able to find workarounds and achieve what was required; we managed to capture the raw EM signatures, catalogue them, and match new signals. Countless problems bombarded us, including both hardware and software issues, algorithm changes etc., when we started testing our actual prototype; SUTDents will be very familiar with this, undoubtedly. It was after the infamous university tradition to "Stay Up Till Dawn" and countless trials and errors, that we successfully delivered our final results.

Although a fair share of frustration and excitement accompanied this process, it was an invaluable experience to test our limits and implement our ideas. A big thank you to SUTD for giving me and many others the opportunity to visit a foreign land and gather knowledge, experiences and memories.



ITEMS is our modular phone attachment coupled with an app to guide users in the operation of any electronic equipment simply by making physical contact with it.

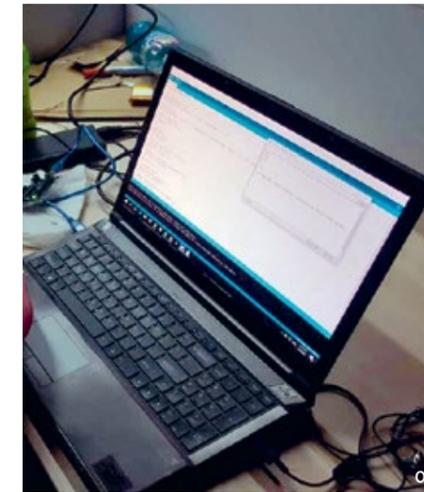


# PROJECT BABY MAT

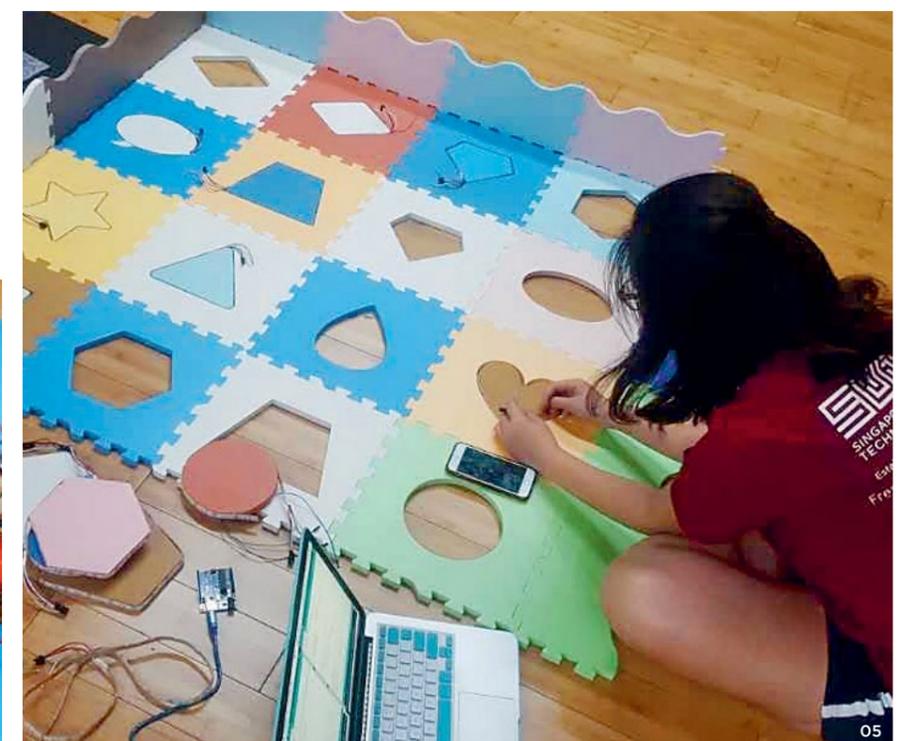
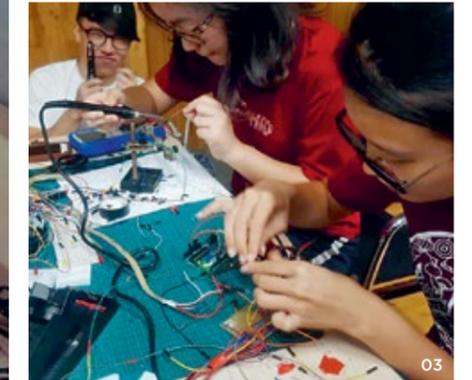
**John Chan Kar Onn**  
Sophomore  
Meridian Junior College Alumnus

Building the baby mat was one of the toughest but most enjoyable challenges that I have faced in school. At the beginning, most of us were unfamiliar with prototyping and software development. We were also in disagreement on how the baby should interact with the mat. After several rounds of discussion, we came to an agreement on the functions of the mat. Our music mat, which is segmented to produce a different song in each block of the mat, plays segments of alpha-wave music when the toddler presses on that specific block on the mat. The aim of this product is to allow the baby to listen to alpha brain wave music, which helps with brain development in an interactive way.

During our prototyping stage, we faced many technical problems like programming in unfamiliar languages and soldering and designing electrical circuits. One of the ways we used to cope was to take time off from the project to go sing karaoke. There is a karaoke place right outside the school gate that is super affordable and offers a great range of songs. How cheap? Try 140 RMB for 5 hours. Taking our minds off the project was a great way to destress and we returned to the problem with a fresh perspective.



01 Cable management of the multitude of wires  
02 Late night debugging of code  
03 Soldering of sensors and LEDs onto PCB  
04 Trip to Alibaba Headquarters in Zhejiang, Hangzhou  
05 Final assembly of mat with completed circuits



# INTERNSHIPS

Every SUTD student does at least one internship. With over 700 industry partners pledging internships, it is a vote of confidence that the SUTD education meets industry challenges and is what the world needs right now. These local and overseas opportunities equip our students with the knowledge and hands-on skills required to prepare and help them make informed decisions about their future.



Sintra, Portugal | Photo from Roshni Nagavalli Saravanan

+ +  
**Aedas**  
 + +



## LIFE AT AEDAS

**Carla Tjandra**  
 Junior  
 Nanyang Junior College Alumna

Aedas is one of the world's largest architecture firms. It has many offices around the globe, with the Singapore office being the second largest after Hong Kong. The practice is involved in various projects such as mixed-use, office, retail, residential, hotel and landscaping.

### Life as an intern

During my internship, I was involved in various stages of the design process. It was interesting to see the creative designs from different people as we shared our ideas with one another after brainstorming. When floor plans were finalised, one of my tasks included colourising them for better visualisation. I also assisted in the report presentation and compiling of relevant documents. Lastly, I was tasked with calculating the rough estimate of the construction cost.

SUTD's hands-on education helped us apply our knowledge to real world problems.



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### International culture & global exposure

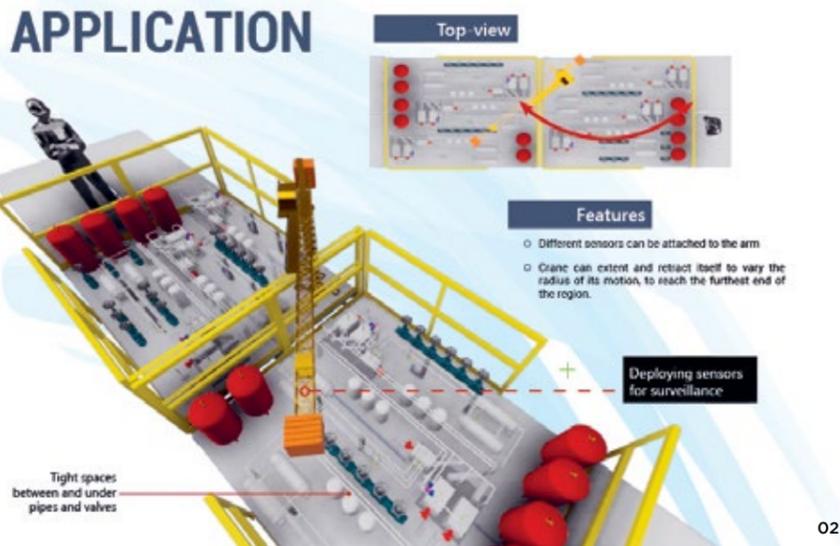
Throughout my internship journey, I met professionals from all around the globe, allowing me to gain precious insights from people of diverse backgrounds. In addition, my colleagues were very friendly and did not hesitate to lend me their help whenever I needed it. This made me feel at ease and enabled me to integrate into the company smoothly. I was also exposed to numerous overseas projects, such as projects in Jakarta, Bangkok and Vietnam.

I am deeply grateful for this opportunity, as it allowed me to learn and grow not just architecturally, but also as a person. This internship experience is definitely one of the highlights of my architectural journey.

- 01 Lunch with the team
- 02 A Vietnam condo project that I was involved in
- 03 Fruit of the week is apple
- 04 & 05 Two Jakarta condo projects I was involved in



05



## THE FUTURE OF THE MARINE INDUSTRY

**Casandra Ong**  
Sophomore  
Pioneer Junior College Alumnus

As part of the Rolls-Royce Electrical Capabilities Group (ECG), I was assigned to a project that studies systems that could be implemented in existing ships and other marine vessels to enable them for autonomous and unmanned voyages. The ECG focuses on research & development and the creation of innovative solutions for key Rolls-Royce business units, including marine and aerospace.

We were challenged to replace the offshore crew that maintains the vessel, and to find more accurate surveillance and cost efficient maintenance solutions. My colleague and I were tasked to research and generate concepts of robots that could manoeuvre and monitor the whole ship. Instead of using traditional research methods, we decided to tackle this from a design point of view. We

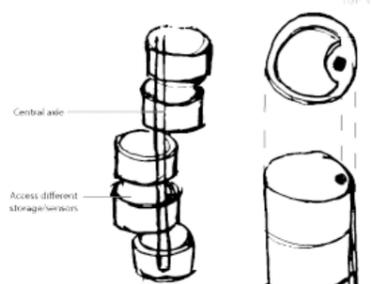
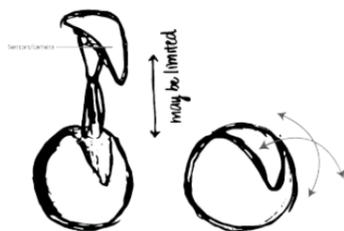


- 01 Photo with team working on ship intelligence
- 02 One of the robotic solutions - application of existing technology in a different environment
- 03 Fabricated the site model via Rapid Prototyping techniques to study and analyse the engine room, to further design and test ideas
- 04 Sketches of preliminary ideas

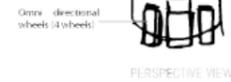
planned to thoroughly analyse the engine room, so that we could identify the various obstacles that a moving mechanism would have to overcome, and thus, propose the best locomotive to achieve that motion. We proposed to make a physical model of an engine room, and although the team was initially doubtful about how useful this would be, we had support from our supervisor. Thankfully, our efforts paid off; the team were not only impressed with our fabrication skills, but also the analysis that came out of it.

SUTD has taught me to be a confident problem-solver, who is passionate about going the distance to learn and innovate fresh solutions. I feel that this mindset had empowered me to take leadership in my work at Rolls-Royce.

### XBOT (EXTENDABLE ROLLING ROBOT)



### DIM SUM CRATE



## THE WORLD OF DATA SCIENCE

**Pek Yun Ning**  
Junior  
Dunman High School Alumnus

Summer was an extremely fruitful experience working in the Enterprise Systems Department at Singapore Airlines Limited (SIA). As I navigated the world of data science and worked on text analytics for customer interactions, I was given the opportunity to solve problems and implement new solutions. Being an individual who enjoys being at the forefront of change, let alone with our national carrier, this greatly appealed to me.

Using a form of pattern matching logic, I utilised Python (coding language) to carry out data analysis. Python was also used to carry out data processing, data cleaning, and data organisation. These steps were crucial in the visualisation of data using Tableau, which generated graphs that helped my teammates and I to gain deeper insights into customer interactions.

Data was also visualised in the form of word clouds, and frequency format using Excel.



Some Natural Language Processing was used in this data analysis. In my third and final major project, I used Python to prepare and sort out data in a specific format - metadata required for a later part of a completely different project.

Digital World during Freshmore year equipped me with knowledge of what Python can do, and what to search for whenever I am stuck on something, enabling me to easily develop an approach to code for projects I am assigned to at work. Statistics, a part of Engineering Systems and Design (ESD), allowed me to appreciate the use of Excel, and exposed me to Excel's capabilities. In general, the ESD curriculum has taught me to be meticulous in my work.

Undergoing an internship is without doubt, a good use of time, regardless of job scope or company we are assigned to. There is something to learn from every experience, and something to learn from everyone we encounter.





01



## WEB DESIGN AT STOMP

**Tan Yan You Eiros**  
Junior  
Hwa Chong Junior College Alumnus

My summer internship at Singapore Press Holdings (SPH) had me working as a UX/UI designer for the STOMP team, the group behind the hyperlocal news site that all Singaporeans know. Designing has always been my interest, and it is there as a UX/UI designer that I am able to offer my opinions towards the look of the website and see it come to life.

My internship period coincided with the launch of STOMP 4.0, when it was undergoing a rebranding and an overhaul of the website. My role involved creating mock-ups of several of the website's components and providing the assets necessary for the developers to match the design. Even after the initial launch, new features were added to the site iteratively to improve its usability, all of which required the designer to ensure that the site remained cohesive and readable in its overall design.

The iterative approach to design and the Scrum framework adopted by the team often brought me back to the various teachings of



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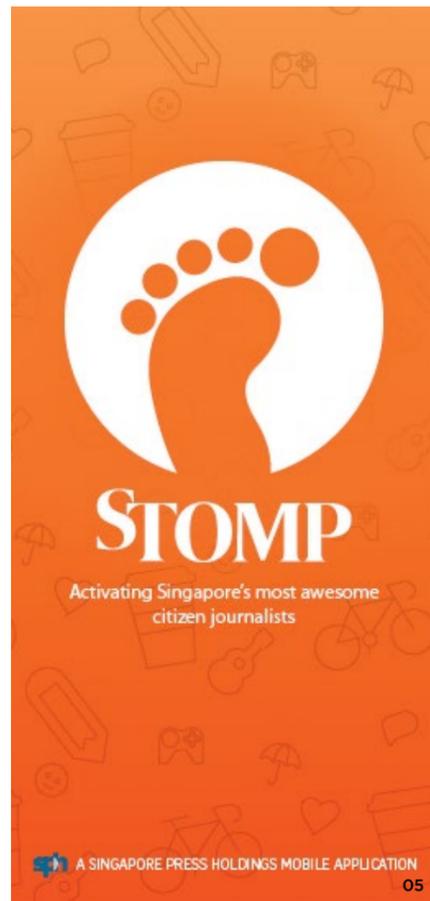


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- 01 Group photo with colleagues
- 02 User contribution form for story submission
- 03 Call-to-action graphic for mobile application
- 04 STOMP WhatsApp promotion page
- 05 Mobile application splash page

the 3.007 Introduction to Design course in SUTD. Due to a lack of experience in graphical design itself, many of my initial designs and ideas faced constant rejections. It was from there that I learned to accept setbacks as a necessary means to improvement, and find ways of improvement through the advice of my colleagues.

This summer internship has been humbling in helping me to mature as both a worker and an individual. With that, I am grateful for the opportunities that SPH has given and the colleagues that have guided me along this journey.



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## LANDING A GREAT INTERNSHIP

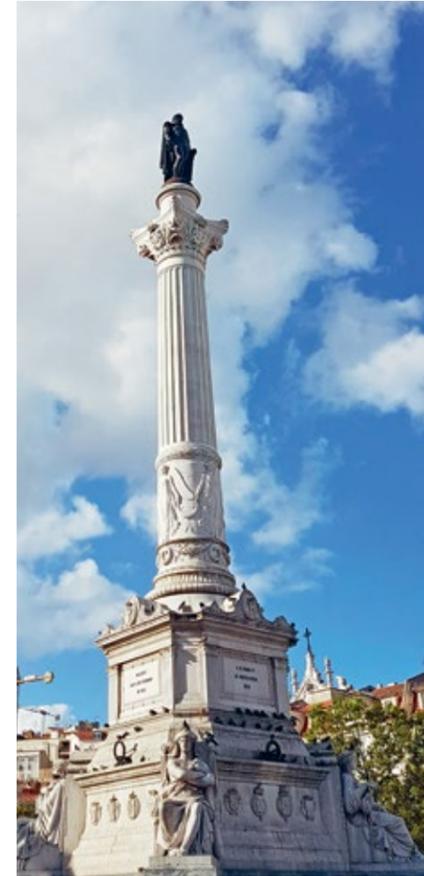
**Roshni Nagavalli Saravanan (left)**  
Junior  
Raffles Institution Alumnus  
**Pammela Ng (right)**  
Senior  
National Junior College Alumnus

Interning overseas is probably the closest experience to actually working and living overseas, four months being long enough to start putting down roots and feeling like a local, but not enough to fully explore Portugal and form strong relationships.

We interned at Landing.jobs, an up-and-coming startup for tech recruitment. Getting out of our comfort zone to travel to Portugal and interning in Landing.jobs turned out to be the best and most valuable experience of our lives.

As part of team bonding, we went hiking 10km over picturesque cliffs at the western tip of Europe, helped out at the most hyped tech job fair ever, partied hard after the festival in a private boat, and built an Arduino toy.

Among all the scenic views, we enjoyed the golden beaches, rolling hills and majestic castles. It was also the people and the jubilant environment of Portugal that impressed us the most.



I was tasked to improve the quality of job postings. I implemented a dynamic feedback system that evaluates paragraphs and a salary suggestion feature that draws from the company's existing databases, using applications like Ruby on Rails and JavaScript. It was a priceless experience as we were given ownership over our projects despite being an intern.

Unique things - I went on a 4-day solo trip to Seville, Spain via carpool! I also made new climbing friends and went natural bouldering in the forest and by the beach with them. I also learnt to surf in icy cold waters!

**Pammela**

I created a dynamic dashboard with KPIs and conversion funnel of the application flow. This was done using Visual studio SQL Server Reporting Services and SQL Server Management Services. The experience was very rewarding as I learnt a lot in the short period of four months.

**Roshni**

# EVERY SUMMER HAS A STORY

Whether it is going overseas for summer school or participating in international competitions, our students made sure their summer break is one they would never forget.



## ROBOTICS FEVER AT ZJU

**Phang Ying Xian, Bryan**  
Freshmore  
Temasek Polytechnic Alumnus

The IDC Robocon is a global robotics competition held annually. Students from top universities all over the world gather to share ideas and knowledge on robotics and develop a winning robot design within two weeks.

This year's IDC Robocon was held at Zhejiang University in Hangzhou, China. This competition was meant to be collaborative as we were placed in mixed teams to work with different nationalities from different universities.

We were given 10 days to create two robots - a land and a sea robot. On the first day, the theme "Silk Road" was unveiled. Our robots were to pick up and transport goods for trading along steps that simulated the mountains of Silk Road. Thereafter, we were split into our groups and given our raw materials, electronics and tools.

After 10 days of designing, fabricating and nerve-wracking troubleshooting, we showcased our robots at the arena held at Hangzhou's Science Museum.

The land robot we built was inspired by the continuous track that tanks use to go through rough terrain. Our robot managed to successfully ascend steps with speed. Our sea robot has a unique spiral shaped mechanism inspired by Da Vinci's helicopter and it was used to transport the balls from a lower to higher level into a container.

The most memorable experience was bonding with my team mates. Although we had trouble communicating our ideas due to language barriers, we managed to overcome this by drawing our ideas and using body language. It is amazing how collaboration enables each



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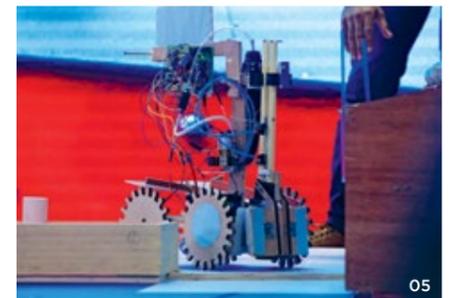
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of us to focus on our individual strengths and at the same time work together seamlessly to create something no single man can create.

My team won The Best Design Award as most of the components of our robot were made using a 3D printer and laser cutter machine. The team worked tirelessly through the night to design and print the necessary components of our robots. One of the major setbacks faced was the robot's inability to climb the flight of stairs due to its size and weight. This meant that we had to dismantle everything, redesign using Solidworks and rebuild the robot. Thankfully, our persistence paid off, and we emerged victorious.



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- 01 Zijingang Campus in Zhejiang University
- 02 & 03 Everyone's hard at work assembling their robots
- 04 Preparing our robot before the competition starts
- 05 Robot navigating the obstacles in the arena
- 06 SUTD representatives with our robots

Photos from Chiu Po Heng



06



## A TASTE OF ENTREPRENEURSHIP

**Joshia Seam**  
Sophomore  
Anglo-Chinese Junior College Alumnus

The world's largest extreme entrepreneurship programme - from an idea to a tech start-up in 15 days. 1,000 international students participate in this, with daily mentoring by 200 venture capitalists and speakers.

Andiamo! I headed to Turin, Italy for the European Innovation Academy (EIA) this year. Turin is the birthplace of Bicerin (like Mocha but better). It is a city surrounded by the Alps bearing the legendary Shroud of Turin. Getting around the city and communicating with locals was a challenge as a minority spoke English. Gradually, I realised that gesticulation was the unofficial language of Italy; hence forth I began getting ideas across through hand motions.



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- 01 My team and I with the EIA sign
- 02 The Colosseum in Rome
- 03 Architecture in the City of Turin
- 04 Scenery of the Alps
- 05 My team member, Jeniffer from University of Alabama wearing the prototype we built for our project called BRIDGES.

Despite the term "Academy", EIA was an adventure. The goal was to create a business in 15 days. Starting with 120 teams, only 10 teams will get to pitch (funding is not guaranteed). It was a culling process and a quaint representation of the odds of a start-up succeeding. Team formation and ideation was chaos. I pivoted from my initial idea multiple times, ditched teams and joined new ones. Everyone wanted to do a tech start-up but few actually knew how. Engineers were high in demand, and this is not something you'd hear everyday.

I ended up with a team interested in biometric devices for school children. We created the business plan, acquired potential customers and made the prototype within the given time. It was hard work, but the idea failed to qualify for the top 10. Nevertheless, the exercise of creating a business was fun and valuable. The adventure has yet to end, the search for the next unicorn has only begun.



05



## A FESTIVAL- STYLE SUMMER SCHOOL

**Benjamin Quek Xiang Yi**  
Sophomore  
Anglo-Chinese Junior College Alumnus

CuriousU by the University of Twente is a unique, week-long festival-style summer school experience in the Netherlands, with academic courses, music, sports, theatre and inspirational speakers.



**0820 Breakfast & morning inspiration!**  
In the morning, after getting our buffet breakfast, we get to hear a talk from a keynote speaker. Makes for great in-meal inspiration.



**0930 Time for class!**  
A typical classroom at the summer school - an open concept which allows natural light in. We also get to choose which class to join!

Hi there! My name is Benjamin and I am going to write about how a day is like in CuriousU; a summer school that I had the opportunity to attend hosted by the University of Twente in the Netherlands. It was a fun and enriching experience and I hope to share how it feels like to be there!



**1230 Lunch!**  
For lunch, we can sit outside in the open and enjoy our food under the blue skies. Unlike Singapore, the weather is nice and cool!



**1300 Afternoon games!**  
After lunch, we have the choice of various fun activities to choose from to fight the food coma. The one featured here is human foosball, fun is guaranteed!



**1400 Back to class!**  
It cannot be all work and no play, so it's back to class... but without the fear of food coma. Here is a photo of my group preparing for a presentation, stress!



**1800 BBQ dinner!**  
After a long day of fun and learning, it is time to unwind and relax with good old barbeque. Here, everyone with a plate of food in their hands talks about their day and enjoys themselves!



**1900 Chill with the band!**  
Along with the BBQ dinner, a local band was invited to play their set. It was lit and provided a great atmosphere for everyone to have a chill evening in the outdoors!

All in all, it was a very fun programme and one I am thankful SUTD provided an opportunity for me to join.



# DESIGN THINKING IN JAPAN

**Judith Lim**  
Sophomore  
Tampines Junior College Alumnus

An 8-week hands-on experience, using Design Thinking and focusing on the user experience.

We took three modules at Tokyo Tech: Entrepreneurship, Engineering Design Project (EDP) A and Enterprise Engineering.

For Entrepreneurship, we learnt how to make a persuasive elevator pitch, identify potential target groups and develop a business model.

In the EDP (A) course, we were tasked to create anything related to a bathroom, kitchen or an entrance. My group picked entrances to work on. We noticed that people were always on their phones and pay little attention to their surroundings. To alleviate this situation, we created an invisible gate that appears from the ground to draw people's attention. To show our idea, we had to create a scaled down prototype and an actual size version. As it's hard to make a real life gate, we turned to augmented reality to achieve the actual size prototype.

As for the Enterprise Engineering course, we learnt different frameworks to help break down business processes. One of the major frameworks we learnt was IT-CMF, which helps companies identify the maturity of their IT capabilities so that they know which to work on in order to improve their business.

Overall, I felt that most of the classes were fun due to the way lesson materials were delivered as the activities the professors made us do not only helped us learn but were also very engaging. Design Thinking in Japan is more



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focused on user experience. Observation and feedback are very important in the creation of a prototype. Most of the time when we were building prototypes in classes, we had to constantly seek user feedback.

During my stay in Japan, I made many close friends. With the EDP (A) project, despite the members being from different countries and walks of life, we bonded well and had a lot of fun completing the project.

- 01 View from Tokyo Sky Tree
- 02 Day of the final presentation
- 03 Actual size prototype using augmented reality - We wanted to see how users would react to the gate
- 04 Prototyping with the 3D printer
- 05 Scaled down prototype - gate down
- 06 Scaled down prototype - gate up



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Hanyang University



One of the activities by HISS is the Coex SM Town O School Hologram Concert. It is a hologram musical performance.



Wearing a Hanbok is a must when you are here in Korea, not only do you get to feel like an ancient Korean royalty, but you get free admissions to the Palace Museum and the Palace itself. During my trip, I have visited Gyeongbokgung Palace which is the biggest one in Seoul.



I took Korean Language Beginner Level 2 and I strongly recommend it because the lessons are rigorous and you will definitely improve by speaking, writing and hearing it everyday.



# A SEOUL-FUL SUMMER

**Soh Jun Xian**  
Sophomore  
Serangoon Junior College Alumnus

Throughout the 4-week programme, the Hanyang International Summer School (HISS) balances academic courses with cultural immersion.



Ever tried raw seasoned beef? We had some and my friend loves it because of its interesting texture.



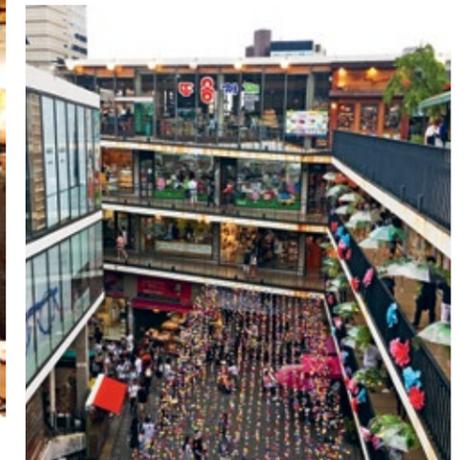
On the second weekend of our stay in Korea, HISS brought us to Everland, one of the famous amusement parks in Korea.



One of the highlights in Hongdae is the animal cafes. We visited a Sheep cafe called 'Thanks Nature Café'. If you like animals, do pay a visit to the various animal cafes.



We made a Korean friend named Dae Young whom we asked for directions to the nearest KBBQ place but ended up having dinner with him.



If you like arts and craft, Insadong is a paradise for you. They sell novelty items and many budding artists showcase their innovative creations here. Other than shopping, you can consider taking handicraft classes.



# MIDSUMMER DREAM

**Wong Yi Xin (right)**  
Sophomore  
Victoria Junior College Alumnus

**Emma Lim Zi Xian (left)**  
Sophomore  
Victoria Junior College Alumnus

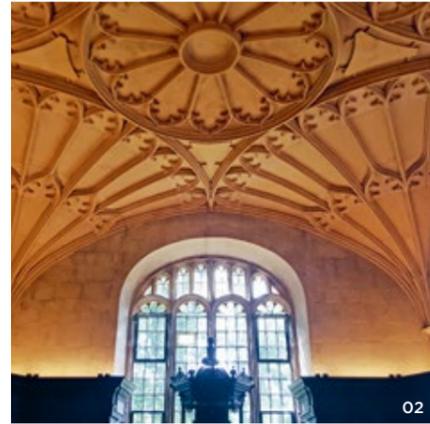
A 3-week residential summer school examining a variety of significant texts and literary movements from the Anglo-Saxon period to the present day.

Three weeks studying literature in the most LIT it gets — Oxford University, of course. :) Right here, in the very same college that honed the so very clever mind of J.R.R Tolkien, Exeter College!

So what are three ASD majors doing in a literature course? Expanding our horizons and establishing the holistic report that is sought after by employers across all disciplines and institutions all over the world. :)jk. Just because English Literature is the best subject and it is more than you think! No it's not just all about smoking and coming up with complicated theses with tons of jargon.

Literature teaches you about life, and it is related to architecture in more ways than you can expect. Just as architecture changes as the period changes — the Baroque period, Victorian era, Post-Modern etc, literature changes just the same along with history. For instance, post-modernist or contemporary architecture has encouraged the style of rebelling against the traditional, the past, and pushing the limits; contemporary poetry and fiction has also seen writers breaking traditional practices such as writing sonnets with a twist, crossing the rigid borders of the traditional rigid sonnet form perhaps to criticise old beliefs or just to express in ways people in the past never did.

And of course, what beats studying English Literature in the UK in an institution like Oxford, writing an essay and reading in a Bodleian library, so old, so grand, so magnificent and filled with history! Sitting on the same library seats, using the same tables



that so many great people have used. Words can't even begin to explain how awesome being given the opportunity to study here is! Being under professors with the best expertise, tutors who are so passionate about Shakespeare they make you want to know more about Shakespeare as well.

After a three-week rush of running to lectures and tutorials, churning out two papers of three thousand words each and spending lazy afternoons in book cafes, it was time for us to bid farewell to one of the loveliest little towns one could only dream of staying in - Oxford. It was an undeniably surreal experience to be strolling along streets ridden with historical architecture and to casually enter grand libraries that have stood for centuries, a place only exclusive to Oxford students.

Rare opportunities such as studying Literature in Oxford do not come by easily and we are immensely grateful to the school for giving us this chance to pursue our interests.

- 01 Exeter College Dining Hall - basically Harry Potter dining hall in real life!
- 02 Old Bodleian Library - so old and grand and the library gets a copy of every single book published in the UK
- 03 Watched a Shakespeare play live. Amazing acting and stage sets.
- 04 With Dr. John O' Connor, our Shakespeare on film professor
- 05 Picturesque campus where we studied at
- 06 You know that one famous quote from Shakespeare - "To be or not to be", yup it's this dude, Hamlet



# MAKING A SPLASH AT WUG 2017

**Tan Zhe Xian Dion**  
Sophomore  
Temasek Junior College Alumnus

The World University Games (WUG) aka Universiade is an international multi-sport and cultural event, organised for university athletes by the International University Sports Federation (FISU). It is second to the Olympic Games.

**How did you pick up swimming?**  
I was an asthmatic kid and the doctor recommended my parents to enrol me in swimming to improve my asthmatic symptoms.

**What do you enjoy most about swimming?**  
I enjoy many things about swimming! If I were to pick something special about the sport, it's the search for the perfect technique that is suited for my body type. We all have different body types. It's not like I can copy Joseph Schooling's butterfly and I'll suddenly be able to swim as fast as him. Swimming is fun in this sense where I must keep experimenting to clock faster times. There are just no limits.

**How is your preparation for the games?**  
Everything has been great and I'm fired up to see how well I'll perform in the upcoming games! I was very fortunate! During my three months Summer Programme in Zhejiang University, the school's swimming coach, Coach Huang, offered to coach me. He even put me to train under Coach Wu at Hangzhou Chen JingLun Sports School, who formerly trained Olympic swimmers, Chen Hua and Wu Peng.

**How do you juggle between training and school work?**  
There's always time! It's just how disciplined you can be. As I am training six to nine times a week, efficiency really matters when I am studying. It may sound cliché but I try to absorb as much as I can when I'm in class. I make sure I listen attentively, participate actively and ask questions when in doubt. All this so I don't have to study the topics all



over again. On test and exam weeks, instead of skipping trainings, I cut down my training hours to ensure consistency in performance.

**What have you gained from this experience?**  
I am very grateful to be able to represent both Singapore and SUTD on the World Stage against top swimmers from all around the world! I had the opportunity to meet and interact with Olympians, make friends with athletes from other sports, and from countries which I previously never heard of! It was certainly an eye-opening and motivating experience for me to work harder for the WUG 2019 in Italy. SUTD has been really supportive in terms of paying for my WUG trip, sponsoring my transport to training, administration and even emotional support!





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