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AWARDS (PUBLICATIONS AND
INTERNAL COMMUNICATIONS)

PR AWARDS ASIA
2017 (CORPORATE
PUBLICATIONS)

**SECRETS
OF A HIGH
ACHIEVER**
HOW A CAR ACCIDENT
AND INSPIRATIONAL
TEACHERS CHANGED ME

Hey!

THE NTU MAGAZINE JUL-AUG 2017 NO.33

UP, UP AND AWAY!

THE CLASS OF 2017 IS READY FOR TAKE-OFF!

**1ST
IN
ASIA**

WORLD'S
TOP
YOUNG
UNI

I GRADUATED
FROM THE
WORLD'S
TOP 11 UNI

Miracle on
**MOUNT
EVEREST**

BIG LESSONS FROM A
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**GETTING
TO KNOW**

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- FIRST RITES OF FRESHMEN
- THE UNOFFICIAL GUIDE TO NTU
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KEEP IN TOUCH!

We welcome your ideas, views and contributions. Email us at hey@ntu.edu.sg



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HEY! GO GREEN

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PHOTO MARK TEO

COVER TALENTS ASHIQ SARIIP
Mechanical Engineering

LAWIS KOH
Accountancy & Business

NATALIA TYMOSIEWICZ
Sociology

SANTOSH YADAW
Physics

ALEXANDRA LOW
Accountancy & Business

FVI



NDP'S ROBO-HOST

A familiar face will be on stage at this year's National Day Parade, or NDP, on 9 August. No, we're not talking just about celebrities Julie Tan, Joakim Gomez, Nurul Aini and Subramaniam Narainda, but their co-host, EDGAR, the NTU robot, who will also be the first robot host in the parade's history.

Created and programmed right here on campus, he's as Singaporean as it gets. He even has a "tattoo" of the Singapore flag on his arm. And if his appearances at the National Education shows in July are anything to go by, he's going to be quite a crowd favourite.



PHOTO: THE STRAITS TIMES © SINGAPORE PRESS HOLDINGS LIMITED. PERMISSION REQUIRED FOR REPRODUCTION

NADINE'S PUBLIC DEBUT

If you are hoping to chat with Nadine face-to-face, you can now head over to the ArtScience Museum. NTU's very own social robot receptionist Nadine has done so well serving guests on campus that she now has a full-time job there. She will meet, greet and hopefully, remember the thousands of visitors at the museum's newest exhibition, *HUMAN+: The Future of Our Species*, where she is "working". Not only will Nadine chat with visitors, she may even hand a few lucky souls a drink – thanks to her new articulated hand that can hold things. Say hello to Nadine before the exhibition ends on 15 October 2017.

IT'S A REAL THINK

Can't find a seat in a food court? Look out for the green light. With Smart Eatery, an LED-lighting and sensor system, *choping* seats with tissue packets might be history. And if you can never find fitting clothes online, check out MasterTailor, an app that will tailor an outfit for you. These are just two of the winning projects developed by engineering students that were showcased at an innovation and design open house held at NTU.



EYE SEE, EYE DO

Blink and you'll miss it? According to NTU scientists, that's just a figure of speech. When we blink, the positions of our eyes before and after the blink are not exactly the same, yet what we're looking at does not jump around. This is because our brain has learnt to correct the misalignment and it repositions our eyes during the blink to make up for the change in position, say NTU's psychology professors.

Halal style



Ladies, brace yourselves. More branded halal-certified beauty products should hit the market in the near future. According to NTU researchers from the Institute on Asian Consumer Insight, big brands that are certified sooner, such as Shiseido, will reap the rewards of being first movers. And those lagging behind could be brushed aside.



BUY ON THE FLY

Retail therapy is real. And as a new study by Nanyang Business School professors has found, buying practical items like stationery or household goods may be more effective in boosting your mood. In fact, buying products associated with problem-solving gives shoppers a sense of control during uncertain times, such as before a wedding. So if the urge hits you, just hit the nearest bookstore or hypermart. [hey!](#)

CONGRATULATIONS...



ABOUT TIME

Undergrad **Stanley Wong's** GyrO-Clock, with rotating shells, was simply ahead of its time, garnering him the top accolade in the tertiary student category at the Singapore International 3D Printing Competition.



COMMUNICATION COUP

For their exceptional study on people's reactions to online comments, communication whizzes **Looi Jie Min, Abigail Chua, Alisius Leong and Damian Gan** (from left to right, with their supervisor, **Assoc Prof Benjamin Detenber**) won the top student paper award from the International Communication Association, the first time an undergraduate entry has taken this crown.



WIN-WIN CASE

Six days, 16 competitors and one winning team – Nanyang Business School students **Lewis Loo, Terence Lee, Odelia Oh, Han Sheng Chien and Cai Wenjie**. The NTU undergraduate team beat other varsity teams from leading schools like University of California, Berkeley, and University of Pennsylvania to bag the top prize at a global business case competition in Belgrade.

HEY!-DAY

The revamped **HEY!** caught the eyes of the judges at the PR Awards Asia 2017 in Hong Kong, winning an award in the corporate publications category. This is the 12th honour for **HEY!** since its inception and its first since its makeover was rolled out by **NTU's Corporate Communications Office** four issues ago.

TOP OF THE PICK

Congrats to Team NTU for being one of the 16 international finalists who will be heading to Nagoya, Japan, in July for the Amazon Robotics Challenge. As the only representative from Singapore, the team will be under pressure to ensure their robot can pick and keep items quickly and efficiently. All the best!



ENVIRONMENT CHAMP

The harsh reality of climate change caused by humans is nothing to smile about, but winning a top award at the 50th Worldfest-Houston film festival for a short on climate change is certainly worth celebrating. **Prof Isaac Kerlow's** animated film, *Change* – a succinct portrayal of how rapid climate change came about – was honoured with the only Platinum award in the ecology and environment category.



RAISING THE AI BAR

Video games are set to get even tougher, thanks to a team of **NTU PhD students**. With their smart Minecraft AI agents, they eased the competition at a collaborative AI challenge organised by Microsoft.

(BIG BANG)

NTU RISES TO 11TH IN THE WORLD



Students, staff and alumni cheer on NTU's ascent up the global league table; NTU also named world's top young university for 4th straight year **BY PETER YEO**

It's official. NTU Singapore is ranked the best university in Asia in the latest Quacquarelli Symonds (QS) World University Rankings, having scaled to 11th in the world.

It is also an all-time high for a young university below 50 years old in the QS rankings, and the highest position ever by a Singapore or an Asian university in the global league table.

In another QS ranking of the world's most dynamic young universities 50 years old or younger, released a month later, NTU topped the list for the fourth consecutive year.

"NTU is not only cementing our place as the world's No. 1 young university, but we have also moved up in the main league table to 11th place, just shy of the global Top 10," says NTU President Prof Bertil Andersson. "NTU will continue to place top priority on enhancing the quality of our education, research and innovation programmes."

"Work hard and believe it. NTU has reached a whole new height by achieving the 11th position in the QS World Ranking..." — NTU STUDENTS' UNION (@NTUSU)

THE BUZZ ON SOCIAL MEDIA

NTU's Facebook (@NTUsg) post attracted over 1,700 shares, generating close to 10,000 likes and almost 1,000 comments.

"WELL DONE, NTU, AND PROUD OF THE ACHIEVEMENTS! AHEAD OF PRINCETON, CORNELL, YALE AND UPENN, WOW!"
— ERIC SIN

"WELL DONE @NTUSG. A GREAT UNIVERSITY THAT WANTS TO CONTINUOUSLY IMPROVE. TOP 10 CLOSE!"

— TRISTAN HOCKLEY (@TRISTANHOCKLEY), PARTNER AT PWC

"WAY TO GO, NTU! KEEP SOARING. THE STARS ARE WITHIN YOUR REACH."
— JANAKI RAGHAVAN

"GOOD JOB TO THE UNI AND GO FOR THE TOP 10!" — VINCENT TEO

"Congratulations beloved alma mater Nanyang Technological University! Thank you so much Prof Andersson, thank you NTU! Eternal gratitude!" — CHRIS LIN ON TWITTER

"@NanyangBizSch: Hurray! We're now ranked 11th in the latest QS World University Rankings. Way to go, #NTUsg!"
— SVEN AMELSBURG, ALUMNUS FROM SPAIN

"Good breakthrough NTU... you have brought pride to all your alumni."
— CHAN CHUA WEI ON LINKEDIN

Since 2010, the university – also named one the world’s Top 15 Most Beautiful by Business Insider, *Travel + Leisure* magazine and BuzzFeed – has climbed 63 places to reach the 11th spot.

Mr Ben Sowter, QS’ Research Director, says: “The fact that an institution of NTU’s youth and profile finds itself on the brink of the world’s Top 10 is a remarkable achievement and a testament to a concentrated, selective funding model, strong and consistent leadership, sticking with an ambitious tactical plan and a radical approach to international partnerships and collaboration.”

The news could not be more exciting to students of NTU as well as alumni. Hong Wei from the graduating class of 2017 says: “I am fortunate to have studied at the number one university in Asia and in Singapore. As an NTU student, I’m filled with pride. There’s always something new happening on this young, exuberant and beautiful campus.”

Prof Andersson attributes NTU’s success to three factors: “People, people and people. NTU has attracted the best talents: top faculty, promising investigators and the brightest students.”

He adds: “Even though NTU is now the highest ranked Singapore university, I maintain what I have always said – Singaporeans should be very proud that a small nation like Singapore has two world-class universities.” 

TOP 20 UNIVERSITIES

RANK	UNIVERSITY
1	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
2	STANFORD UNIVERSITY
3	HARVARD UNIVERSITY
4	CALIFORNIA INSTITUTE OF TECHNOLOGY
5	UNIVERSITY OF CAMBRIDGE
6	UNIVERSITY OF OXFORD
7	UNIVERSITY COLLEGE LONDON
8	IMPERIAL COLLEGE LONDON
9	UNIVERSITY OF CHICAGO
10	ETH ZURICH — SWISS FEDERAL INSTITUTE OF TECHNOLOGY
11	NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE
12	ECOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE
13	PRINCETON UNIVERSITY
14	CORNELL UNIVERSITY
15	NATIONAL UNIVERSITY OF SINGAPORE
16	YALE UNIVERSITY
17	JOHNS HOPKINS UNIVERSITY
18	COLUMBIA UNIVERSITY
19	UNIVERSITY OF PENNSYLVANIA
20	AUSTRALIAN NATIONAL UNIVERSITY

Source: QS World University Rankings 2018



MY LIFE.
MY FEEDBACK.
MY VOICE.

(COVER STORY)

TRAILBLAZERS 2017

MOVER, SHAKERS, — and — GO-GETTERS



*Everyone's a winner in NTU's Class of 2017.
HEY! salutes the many talents in our midst here*

BY DEREK RODRIGUEZ, PETER YEO AND CHRYSTAL CHAN

PHOTOS BY MARK TEO

(HE'S GOT A CHOCK-A-BLOCK RESUME)

SEASONED INTERN

Award

LAWIS KOH (ACCOUNTANCY AND BUSINESS)

Lawis starts his career as a Management Associate at Sea, the fast-expanding internet platform company formerly known as Garena. But, despite calling it his first job, he's actually worked at six other companies while in NTU, gaining experience in a variety of industries.

"The first internship was purely for the sake of earning money to support myself," explains Lawis. "But it taught me that I was far from capable enough to match my ambitions. The second was a degree requirement. After that internship, I had a better idea of what I wanted to do in future. Subsequent internships were driven by a hunger to find my passion, learn from amazing people, and develop myself."

Revealing that he received job offers from five of the six companies he interned at, Lawis credits Rocket Internet and DBS as where he had the most positive experiences.

"I was given the opportunity to do transformative work that impacted the entire business and to learn from senior management. But this doesn't downplay the importance of what I learnt in the other companies."

Buffing up his already loaded resume is his participation and victories in case competitions for NTU, including five championship titles.

"I went to Bentley University in Boston for exchange and took part in a case competition there. I was up against MBA candidates from various universities including Massachusetts Institute of Technology, and won it with luck and determination."



HAFIZAH BEEVI

(ENGLISH)

Third time's a charm for English graduate Hafizah, who took her A-level examinations three times so that she could enter NTU.

"Despite being a science student since secondary school, I switched to humanities after I failed the A levels for the second time. I took H2 English literature and Tamil literature for the first time in my schooling life and discovered my passion in the process. After that, it was a natural decision to study English in NTU."

Hafizah made the most of her university days. She held leadership positions in both the Tamil Literary Society and the Muslim Society. To expand her horizons, she joined NTU's branch of Model United Nations to learn about diplomacy and international relations, and Perspectives Film Festival, where

NEVER SAY NEVER

Award

(THE GIRL WHO WON'T GIVE UP)

students organise a film festival from start to finish. She also co-founded the volunteering wing under the NTU United Nations Student Association and was a student ambassador for the humanities school.

"My favourite memory of NTU is the time I went on stage as an alien for a Tamil Literary Society drama production!" she jokes.

While waiting to enter NTU's National Institute of Education for her postgraduate studies, Hafizah teaches English and literature in a secondary school.

"I am the first university graduate in my extended family and I have finally achieved my dream of becoming a teacher. I hope to inspire my students to keep working on their dreams, so they can achieve them too."



HOT ON THE JOB MARKET

Award

ALVIN NG

(ACCOUNTANCY)

To say Alvin is "driven" would be severely underselling the young man. He turned down no less than five job offers in the finance industry, just to wait out a position at the Monetary Authority of Singapore. Inspired by his father, who had retired from the Singapore Police Force, Alvin has



HE RECEIVED 6 JOB OFFERS

always heeded a higher calling to serve the greater good.

"My father advised me to get a job that would let me contribute the most to society instead of paying me the most. Integrity is important," he says.

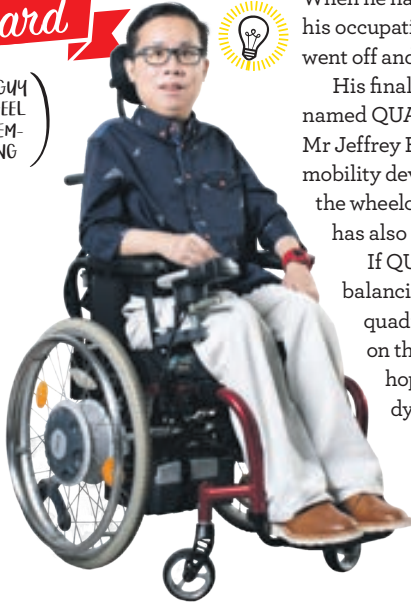
Even in NTU, Alvin spent his Saturdays mentoring juniors in the business school's case club, Business Solutions. He prepared them for case competitions, where teams develop the best solutions to business- or education-related case studies within a given timeframe. The 24-year-old also managed to find bandwidth for the students' union, volunteered at myriad organisations for the disadvantaged, and represented Singapore at an international case competition. And the first-class honours graduate never let his grades suffer.

If you want to know how Alvin got so many job offers, here's a tip: He manages a neat LinkedIn account filled with his achievements and experiences. Whenever he applies for a job, he customises his resume to highlight skills and experiences most relevant to the role.

GOING PLACES

Award

(GO-TO GUY FOR WHEEL PROBLEM-SOLVING)



TIMOTHY CHAN (PRODUCT DESIGN)

Timothy stands tall among his cohort at the School of Art, Design & Media. Born with Duchenne Muscular Dystrophy, the 27-year-old has been in a wheelchair since 13. Timothy candidly tells us that he is the “worrying kind”, yet he rose to the challenge while he was at Ngee Ann Polytechnic. When he had complained then about the archaic design of his wheelchair, his occupational therapist said: “Why don’t you design a better one?” Bells went off and Timothy set out to create a wheelchair he would love to use.

His final-year project at NTU is an improved version of that wheelchair named QUADOM. He attributes the futuristic wheelchair to his lecturer, Mr Jeffrey Hong. Timothy had originally wanted to work on a personal mobility device like a hoverboard, but Mr Hong advised him to redesign the wheelchair instead. “It was a no-brainer for him,” says Timothy, who has also created artwork inspired by X-ray images of his own body.

If QUADOM makes it to the market, it would be the only self-balancing wheelchair with four degrees of movement built for quadriplegics, says Timothy. This would extend his range of motion on the move. The virtuoso, who pursues fine arts in his spare time, hopes to commercialise the QUADOM so people with muscular dystrophy can face the world with their heads held high.

FINGER IN EVERY PIE

SHE'S THE 'CAN DO' QUEEN

Award



ALEXANDRA LOW (ACCOUNTANCY AND BUSINESS)

By her own admission, Alexandra cannot sit still. She’s just returned from a jaunt through New Zealand and Yogyakarta, and laments that “there’s nothing to do” between now and when she starts work at JP Morgan in August.

Even before her first year at Hall 4 had come to an end, she had already begun to shape the hall’s next freshman orientation as a programmer.

While juggling schoolwork and an internship at investment management group ThirdRock, the Raffles Institution alumna led a team of 60 volunteers who consulted with non-profit organisations to help them achieve a set of real-life objectives.

The valedictorian and winner of the Lee Kuan Yew Gold Medal also managed to pack in three internships: first at Deutsche Bank, followed by Wilmar International in Dongguan, China, and later JP Morgan, where she will begin her career.

Until she starts full-time work as a Treasury Services Analyst, Alexandra is determined to show her friends she can “not do anything”. Which, by her definition, means devouring non-fiction books such as the economic science tome, *Thinking Fast and Slow*, as well as articles on topics she’s “curious about”.



ITCHY FEET

SHE'S READY
TO PACK
AND MOVE

Award

TAN YING HUI (SOCIOLOGY)

NTU gives you wings. And for Ying Hui, a compass and a treasure map to reach your ambitions. The sociology graduate has been working in Shanghai for Seedlink Holdings, a human resource analytics firm, since March last year, first as an intern, and now as a full-fledged employee.

The desire to live and work in another country, says Ying Hui, came from her overseas exchange stint in

Toronto, Canada, in her second year.

"Studying in Toronto made me realise I loved meeting new people and collecting stories from them."

NTU's Overseas Entrepreneurship Programme which marries studies and exposure in emerging companies overseas, gave her the perfect platform to take the next step – to sample life in a different culture as a working adult as well.

"Being in the programme made me feel safe. I knew that help was just a phone call away. Evelyn from NTUitive, NTU's innovation and enterprise arm, was very supportive and even came down to visit me and the others in the programme."

Ying Hui's next port of call is Amsterdam, where she'll be part of the Seedlink team tasked with establishing an office there.

"I don't know where I'll end up, but as I've learnt from sociology, it's okay as long as I keep exploring and, in the process, becoming a better version of myself," she says.

SERIAL ENTREPRENEUR

(5 COMPANIES AND COUNTING)

JEREMY LIM

(COMMUNICATION STUDIES)

You won't know the difficulties of starting a business until you throw yourself into it, shares Wee Kim Wee School of Communication & Information graduate Jeremy. He should know. Jeremy founded his first start-up when he was at Singapore Polytechnic and four others later.

But it was really at the Nanyang Technopreneurship Centre, where he took the minor in entrepreneurship module, that it all kicked in. "I shuttered my first business when I went for national service. The module motivated me to start another business – mostly because I had no choice. We had to incorporate a company by the end of the course," says Jeremy.

Together with a friend, he started digital advertising agency Piccolo+. "It was crazy. We packed five modules in six months. But it taught us perseverance. When I started my own companies, it was just like that – especially at the early stage. You just don't rest, even when you're tired. You stop only when you're done. That was one of my biggest lessons," Jeremy adds.

Today, with three businesses – Workwander, Makerscut and 21Moonstone – running on their own steam, Jeremy works a day job sharing his start-up expertise as the Marketing Manager of Level3, a co-working space started by Unilever Foundry and Padang & Co.



ASHIQ SARIP

(MECHANICAL ENGINEERING)

Convocation is a special time for every graduate, but for Ashiq, it's even more meaningful. Less than four years ago, he was lying in a hospital bed, barely able to move.

"I was diagnosed with Stage 4 lymphoma cancer. I couldn't stop coughing, I couldn't sleep and I couldn't eat. I felt hopeless. But it's not in my personality to back down easily, so I persevered. Thankfully, the chemotherapy and radiotherapy treatments worked and I went into remission after a year."

Other than the "continuous armada of assignments" to take his mind of his health problems, he found encouragement in NTU through his professors, such as Prof Ooi Kim Tiow, Asst Prof Pham Quang Cuong and Assoc Prof Chai Gin Boay.

"Beyond classrooms and textbooks, they often offered life advice," says Ashiq. "For the rest of my life, I'll remember Prof Ooi telling me to 'always be ready to lend a helping hand'."

As his professors did for him, he plans to use the power of words to inspire others, especially those who are going through similar hardships.

"I plan to be an inspirational speaker, not only for cancer patients but for the general public as well. Being able to do this will surpass any accomplishment I have. And it would be an absolute privilege to emulate those who have inspired me."



MR UNBREAKABLE

(NOTHING GETS HIM DOWN)

Award

BIG HEART

FAMILY COMES FIRST FOR HER

Award

MAHARAH BINTE ABDUL MAHID (BIOLOGICAL SCIENCES)

For most of her life, Maharah would rush back after school to help her mother care for her father, who suffered from the debilitating effects of cancer treatment. Maharah would catch up on her schoolwork after midnight, staying awake in case her father needed her help.

When he passed on, she started giving tuition to supplement her mother's income, and would take care of her mother when her diabetes worsened over the years.

"Although I had extra responsibilities, the



opportunity to take care of my parents was the greatest blessing I've ever received," says the first-class honours graduate.

Despite her circumstances, she would conduct charity projects to help low-income families with members afflicted with cancer during her holidays.

"As my father's caregiver, I was aware of the importance of having help. While most of these projects provided tangible support like grocery-shopping, some others were designed to teach the beneficiaries useful skills."

Taking care of her parents had a large influence on her ambitions as well. "Growing up, hospital visits were a frequent affair. My father's doctor instilled such confidence in him that he was the only person my father would listen to. His condition also sparked a curiosity in me for medicine."

Even as Maharah plans to pursue graduate studies in medicine, she hopes to reach out to more families through her charities, and take on more part-time jobs to help her mother.

"Seeing how my parents fought to overcome their illnesses, I promised myself I'd fight for my dreams, whatever difficulties may come my way."

CATCH-UP KING

WHAT IT TAKES FOR A BIG TURNAROUND

Award

AMOS GOH

(ELECTRICAL AND ELECTRONIC ENGINEERING)

Here's a story of why you never give up. Amos has come a long way from "not a good student" to first-class honours at the School of Electrical & Electronic Engineering.

His wireless charging concept – used to power up consumer electronics, "and on roads to power electric cars" – was selected to be shown to company directors, investors, and prospective students curious to see breakthroughs from the school.

Amos tells us studying did not excite him at first. Even though his N-level results allowed him to pick any course at the Institute of Technical Education, it was only when he tasted success at Nanyang Polytechnic that his life turned around.

"My lecturer had to give me personal tuition to help me catch up. At the end of my first year, my math grades had pulled up considerably. After tasting success in one subject, I wanted to do well in everything," says Amos, who pulled in 20 distinctions by the time he graduated from polytechnic.

But it was Assoc Prof So Ping Lam who put Amos on his career track. "On top of supervising my final-year project at NTU, Assoc Prof So offered me career advice. Without his help, I wouldn't have accomplished as much as I did," says Amos.

Today, he's building the future of the Internet of Things at ST Electronics, shaping the Smart Nation initiative for Singapore.



NOT ALL HEROES WEAR CAPES

Award

SAVING
THE DAY WITH
SCIENCE



SANTOSH YADAW

(PHYSICS)

While most kids grew up with capes on their backs, imagining themselves as superheroes, a young Santosh admired Carl Sagan and was heavily influenced by *Cosmos: A Personal Voyage*, a show presented by the famed scientist.

"I developed an interest in physics while watching the show. I wanted to learn more about the physical laws that govern our universe," says Santosh, adding that he believed studying physics in NTU would refine his analytical and problem-solving skills as well.

And, as far as Santosh is concerned, not all heroes wear capes. Being interested in science doesn't mean saving the world takes a back seat.

Says the defence engineer at the Defence Science & Technology Agency: "Although I received several job offers from the technology consulting industry, this position is an opportunity for me to use my passion for technology for the important goal of national security."

Technology such as an infrared invisibility cloaking device perhaps, which was incidentally what he designed for his final-year project, under the guidance of Dr Xu Hongyi and Assoc Prof Zhang Baile, who has been named among the world's top young innovators under 35 years old, alongside Google's Larry Page and Sergey Brin, and Facebook's Mark Zuckerberg.

While Santosh is no Tony Stark yet, he's already far more down-to-earth than the Iron Man. His proudest NTU achievement, he insists, was receiving the Tan Sri (Dr) Tan Chin Tuan Scholarship.

Says the first-class honours grad: "The scholarship gave me an avenue to give back to society by participating in charity events organised by the Tan Chin Tuan Foundation, which helps underprivileged children and the less fortunate."

ATHENA KHOO (MECHANICAL ENGINEERING)

Japan awaits Athena, who heads to Iwata in September. There, she'll be part of the marine team in Yamaha Motor working on motors for yachts. Her desire to find her feet in foreign land was born on another continent, when she did an internship with construction company Mega Pile in Durban, South Africa.

"I saw a different side to life in South Africa. Soaking in a new culture was an eye-opener. I saw how people there were able to think out of the box to solve problems effectively."

Influences closer to home helped sway her decision. Her father, who runs an engineering company, brought her on business trips and sent her for

a training stint in Europe during her university days.

"Everywhere I travelled to, people were friendly and welcoming. I also found that being out of my comfort zone enabled me to grow as a person and understand what I want to achieve in future."

Apart from her father, she encountered other mentors in the form of her professors in NTU, such as Dr John Heng.

"He was our instructor for engineering design, but taught us so much more. Through him, I learnt that being a qualified engineer is more than the skills you acquire. It's also the attitude and sense of responsibility we should work towards possessing as we graduate and step into the corporate world."



GO
FOR
IT
Award

(HE'S ALWAYS
GONE TO TRY
NEW THINGS)



KEVIN SENG (RENAISSANCE ENGINEERING PROGRAMME)

Taking the path less trodden was a risk Kevin took when he enrolled for the Renaissance Engineering Programme in 2011. At that time, there wasn't enough information about the newly-launched programme, now Singapore's top engineering course among A-level graduates.

Kevin's "why not" attitude has paid off in more ways than one. When asked to describe his experience after spending the third year of his course overseas at University of California, Berkeley, he says: "Great or awesome would be an understatement. I'll have to add eye-opening and liberating."

"Aside from the fun I had going on a road trip almost every month, I also joined the Engineers Without Borders student chapter at Berkeley and helped a Peruvian community set up a groundwater arsenic filtration system. Playing with alpacas was a bonus!"

The valedictorian, who clinched a regional role as a project manager at Procter & Gamble after a successful internship there in his fourth year, spends his day monitoring the progress of new initiatives and ensuring that the products can be launched in time in his target markets. The job is a perfect fit for the Hwa Chong Institution alumnus whose goal in life is to solve problems, the bigger and more complex, the better.

"I also like this saying: 'Work until you no longer have to introduce yourself,'" says Kevin, who has earned both a bachelor's and master's degree under this unique programme.

FOUND HER FOOTING Award

(SHE HIT ON
THE RIGHT
COMBINATION)

NATALIA TYMOSIEWICZ (SOCIOLOGY)

Not everyone is fortunate enough to find their true calling in university. But Natalia did. The pivotal moment came in her third year when she took the Minor in Entrepreneurship. "I met many like-minded people, and it opened many doors for me, like the clubs and extra programmes in school that I joined, such as being a committee member of the Junior World Entrepreneurship Forum in 2016," she says.

Her single-minded focus made the decision to join the DBS Graduate Associate Programme an easy one, even though she received three job offers. The appeal was the programme's emphasis on small and medium-sized enterprises like start-ups.

"For most humanities students, banking may not seem like a natural career path. However, I've realised that banks also value the diversity in thought and knowledge that graduates of different disciplines bring, so this is the ideal first job for me," she explains.

The first few years in university were tough for Natalia, as she had to transition from studying business in Singapore Polytechnic to social science in NTU while pursuing her interest in entrepreneurship, but her hard work has paid off handsomely. "I am now able to understand and apply business concepts, and my writing and negotiation skills have also improved. I believe this combination of social science and business knowledge gives me a competitive edge," she says.



CLASS IN ACTION READ MORE SUCCESS STORIES
OF THE CLASS OF 2017 AT
WWW.HEY.NTU.EDU.SG, AND WATCH SOME OF THESE NTU GRADS RISE TO A
MULTI-TASKING CHALLENGE ON NTUSG YOUTUBE AND FACEBOOK.

EXTRA! ↗

How does a rebellious student go from near-dropout to graduating with First Class Honours? Chrystal Chan finds out more as Koh Boon Hwee Scholars awardee and budding scientist Steven Cheng chats with the two mentors who turned his life around

STEVEN: Asst Prof Mueller-Cajar and Mr Zhang, thank you for meeting me. I've organised this catch-up session because I've been conferred the Koh Boon Hwee Scholars Award and I would like to thank you both in person. You are the two teachers I've nominated under this award, which recognises influential teaching.

MR ZHANG PENGCHI: Thank you for this honour. As your biochemistry lecturer at Temasek Polytechnic, I'm so proud of you.

ASST PROF OLIVER MUELLER-CAJAR: Yes, very well-deserved!

have good emotional intelligence as you'll meet some who doubt or question you. People tend to judge those at the top more and I learnt how to manage my reactions.

M: This experience of running Earthlink is very useful as you will probably need these soft skills later on in your career. As a scientist, you can't just rely on pure research ability.

Z: Steven, did you join Asst Prof Mueller-Cajar's lab soon after you entered NTU?

M: Yes, he did. Steven contacted me saying he was interested in plant science and conservation biology. At that time, I was about the only one in the School of Biological Sciences working on plant research, and I needed someone to assist with experiments.

S: To be honest, I don't think I did that well in the lab at the start.

M: You did well and, in fact, got some very interesting results when you purified an enzyme from the leaves of banana trees and also from the bird's nest fern. I'm sure you're the first one who got this enzyme from the bird's nest fern.

S: I'm not sure if Asst Prof Mueller-Cajar knows this, but I first got interested in plant science during my polytechnic years. I went to Vietnam to do my internship in stem cells, and had to kill over 60 mice. I decided I didn't want to kill any more

THANK YOU,

TEACHERS

S: Maybe, Mr Zhang, let me give you an update on what I've been doing. As you know, I entered university with the idea of finding a good professor to mentor me in the field of plant science. That led me to Asst Prof Mueller-Cajar. I spent much of my three years assisting him in his research alongside my studies. I was also the president of Earthlink, an environmental club in NTU, for a year. I've been accepted into a PhD programme in Temasek Life Sciences Laboratory, where I'll be continuing my scientific journey.

Z: That's great to hear, congrats! What were some things you learnt as the president of the Earthlink club?

S: Management skills. Managing people is tough, but managing your own emotions is even tougher. As the president, I had to



lab animals. I also got to know my wife then. She was a researcher in the same lab and her family owns a farm. That's when I got interested in plant science with the dream of ensuring food security in the future.

Z: I understand now why you chose to do your PhD at Temasek Life Sciences Laboratory, which focuses on plant and agriculture. Singapore doesn't produce much of our own food, so food security is very important.

M: Steven actually considered a few other institutes.

S: I got accepted into Cambridge University, but I picked Temasek because I believe it is the best outcome for me, my wife and my mum. Going overseas might be too much of a financial burden.

M: You made a good decision. If you're studying for your PhD in a smaller institute, you might get more time with your professor. It is a good step to take to launch your scientific career, especially when you're still young.

S: I'm 26 this year. In secondary school, I did so badly that I was retained a year. I failed English and only passed two other subjects. I was a rebellious student who always went against the rules and talked back to teachers. While everyone was walking to school, I was walking out of school to the LAN shop.



THE KOH BOON HWE SCHOLARS AWARD

Great teachers inspire great students. The Koh Boon Hwee Scholars Award recognises this virtuous cycle. It is awarded to top graduating NTU students seen as role models, but goes further by recognising the positive influence of the educators in their lives. The winners each acknowledge an NTU faculty member and a teacher from their pre-university institute who have inspired them. The honoured teacher then nominates a student from his or her school to receive a S\$5,000 cash grant upon admission to NTU. The award was first presented as the University Scholars Award but was renamed the Koh Boon Hwee Scholars Award in 2010 in recognition of a gift to NTU from Mr Koh Boon Hwee, Chairman of NTU's Board of Trustees.

M: Actually, in science, it's often good to be "rebellious".

Z: Yes, creativity comes from not following the rules.

M: It is good to not follow everyone else and attempt something from a different angle.

Z: I told Steven to do that too, as long as he doesn't cross the line.

S: That's hard to do sometimes when the regions are grey instead of a clear black line that I shouldn't cross. I've made some tough decisions while following my moral compass. My father passed away when I was in secondary two, and I think I was spending more time gaming than studying, not knowing my focus in life, until I got into a car accident. Nothing serious happened to me, but after that, everything got clearer. I was able to study things a little easier. When I went to Temasek Polytechnic, I knew that learning was more important than the grade itself. I started to try to understand what I was learning instead of memorising everything.

Z: I've noticed Steven has a very strong sense of self-awareness. He asks for help when he knows something is wrong.

M: I recall how he came into my lab with a book on plant hormones he'd found in the library. He came with the mind of a scientist.

S: That's what I want to be! How can I excel in an academic career?

M: Here's one tip: Doing your research carefully and correctly is better than solely focusing on getting published in big, prestigious journals. Getting the science right is your best bet to succeed in the research marathon.

S: I've always been ambitious, but what you just said makes me think.

M: It is more important to consistently publish solid, good research.

S: I'll definitely keep that in mind. This brings me back to what I believe in. My current career goal is to get my doctorate first. After that, I might go into academia or business. But right now, I want to learn the scientific method and enjoy the process. In four years, I will make my decision.

Z: I agree. The answers will come at that time so you don't have to worry about them now. 



These NTU professors and lecturers – all winners of the John Cheung Social Media Award – don't frown upon students using Facebook or Twitter in class. Chrystal Chan finds out how they incorporate the use of social media into their lessons

KEEPING LESSONS FLUID AND ON FACEBOOK

Students easily get into the flow of things in **ASST PROF MARCOS**'s interactive classes on fluids engineering. And outside of class, there's always Facebook to keep them interested.

Teaching is in this congenial professor's blood. As an NTU undergraduate 15 years ago, he already began coaching his peers – as many as 20 at a time – in empty tutorial rooms at the School of Mechanical & Aerospace Engineering.

Returning to NTU with a PhD from the Massachusetts Institute of Technology, he's clearly a hit with his students. Responding to private messages about class work does eat into his personal time. But, no matter, he's just happy when his students get the drift.

“I started a Facebook page for my class on thermo-fluids back in 2012 and it now has over 1,000 followers. After each lecture, I post links to YouTube videos of experiments and demonstrations to help students visualise and understand the concepts taught in class. I also use this account to send reminders about upcoming quizzes or extra classes. My students like using this platform to ask questions. They either send their queries privately using Facebook Messenger, or they leave comments on the posts, which generate vibrant discussions that everyone can benefit from.”

WHAT HIS STUDENTS SAY

“The video demos he posts on Facebook give us a clearer picture of what we are learning and how it can be applied. By watching these clips, I get a better grasp of the concepts, and it definitely makes learning more interesting! Asst Prof Marcos also manages to address our queries specifically with the articles he shares. This is important because there is a lot of information online, but not all of it is useful.” – **GEOFFREY LEE, MECHANICAL ENGINEERING FRESHMAN**





LESSONS IN TWEETING

Bubbly communication lecturer **WONG PEI WEN** won't get upset if her students use social media in class. In fact, they are expected to do just that when they live-tweet guest lectures, conduct social listening or research the social media profiles of journalists.

Her teaching method even landed one student an internship offer from a public relations agency during a live-tweeting session.

The proof is in the pudding; at last count, 200 of her students are her Facebook friends.

Facebook is what she uses to manage group project consultations for her public relations or social media classes at the Wee Kim Wee School of Communication & Information.

As speed is of the essence in real client projects, she does not mind communicating with her students via group chats in WhatsApp or Facebook Messenger if they prefer that over email, as long as she is awake.

In one of her social media modules, she partners companies –

such as ice-cream specialist Udders and used furniture store Hock Siong & Co – to give students a taste of what it is like to manage social media platforms.

“During ‘takeover weeks’, I get my students to post creative content, as well as monitor and regularly update the Facebook, Twitter or Instagram accounts of their ‘clients’ and respond promptly to comments left on these platforms by followers.”

WHAT HER STUDENTS SAY

“Live-tweeting guest lectures may not sound that exciting, but the prospect of having to live-tweet made us pay attention and listen out for useful soundbites. We soon realised that this was a great way of consolidating the key learning points from the guest lectures. Also, because Ms Wong uses social media to teach, our class discussions often veer into interesting topics trending on social media, such as the BreadTalk saga.” – **LIM ZI SONG, THIRD-YEAR COMMUNICATION STUDENT**

FOUND IN TRANSLATION

We can't do without Google Translate, but Facebook and WhatsApp are also vital tools for students taking **DR CUI FENG**'s translation course.

In his classes, translation is rarely a solo effort, much like the real world. Students are often asked to work in groups and steer their own learning, though he's always on hand to take their queries, be it via Facebook or WhatsApp.

Dr Cui, who is fluent in both Mandarin and English, completed his PhD studies at NTU in 2012 before joining the School of Humanities. About 400 of his students are his Facebook friends.

“I started a Facebook group for students doing their minor in translation. On it, I share articles about new developments in translation, job opportunities, upcoming seminars on translation techniques and research ideas. I also get students to talk about their personal experiences with learning translation or working as a translator. I use a relatively new tool called Recap, which is a video response and reflection app. My students use Recap to film themselves expressing their thoughts after watching videos of notable translators like Fu Lei and Zhu Shenghao.”



WHAT HIS STUDENTS SAY

“Facebook is a key part of our learning process as Dr Cui regularly uses it to post articles related to translation. We are supposed to read the articles, because he will discuss them with us in class. We are also required to watch short videos on YouTube and share what we have learnt in class. Dr Cui's use of social media stimulates deeper thought and helps us see how theories can be applied in the real world.” – **JONATHAN HUANG, FINAL-YEAR CHINESE STUDENT**

(ADVERTORIAL)

FLAWLESS SKIN, EVERY DAY

Wave goodbye to uneven skin tone with the Aqua Shine Crystal Glow BB Skin Booster

Get ready to toss your bottles of foundation into the bin and shave precious minutes off your morning routine, thanks to a buzzy new skin treatment from Korea.

Now available in Singapore, this skin booster treatment promises to immediately brighten and rejuvenate your face in just one session. When applied to your skin with a micro-needle derma roller, the all-natural skin colour ampoules, certified by the Korean Food & Drug Administration, are absorbed immediately. The effect? Smooth, even skin – almost as if you have a light layer of foundation on your face.

The Aqua Shine Crystal Glow BB Skin Booster is a semi-permanent makeup treatment that won't clog pores and is suitable for all skin types. In addition, the entire one-hour procedure is painless and requires no downtime afterwards. Now, who says you can't claim you woke up like this?

Aqua Shine Crystal Glow BB Skin Booster, \$532.86, is available at Chrysalis The Brow Haven. For more information, visit www.chrysalisseyebrow.com.sg.

SPECIAL OFFER!

HEY! readers who flash this ad can enjoy a session of this treatment at the special price of \$88, as well as special rates for other treatments like eyebrow shaping and basic eyebrow embroidery.



How NTU-made technologies are changing our future

BY LESTER KOK

SMART PLASTERS

NOW Materials engineers at NTU have developed a smart bandage that can bend and flex along with your joints, such as your knees and elbows.

FUTURE Your bandage can monitor how well your wound is healing. With different types of smart bandages available, you can keep tabs on your sports performance and even be warned when tennis elbow is imminent.



HAIR-RAISING SHOT

NOW Balding men can now recover their crowning glory with a new slow-release medicine gel developed by NTU scientists. A single jab every two months is all that's needed to stimulate hair growth and combat male pattern baldness.

FUTURE With more doctors turning to slow-release, injectable drugs, anyone can get relatively painless jabs at regular intervals to fight conditions like hair loss.



FOR YOUR EARS ONLY

NOW Want to watch a late-night horror movie, but can't find your headphones? With NTU's new invention – a speaker that emits a beam of sound that only you can hear – there's no need to worry about rousing your hall mate from her sleep.

FUTURE Discreet miniaturised speakers could replace most of the speakers on mobile devices, so you can listen to music and watch movies on the go without headphones. Sure sounds like a winner!

GAME ON!

NOW Create your own land of dungeons and dragons, or Vikings and aliens, however you want your fantasy to be. With NTU's dummy-proof game programming software, IntelliK, your characters can come to life with their own smart moves and unique behaviour, all without you coding even a single line.

FUTURE Everyone from young to old can create their own computer games, whether in the vein of Super Mario or with the sophistication of World of Warcraft. When you create your own games, you are actually learning how to handle big data and artificial intelligence. 





Freshmen, we've got an offer you can't resist. You know those uncertainties you have, about being in a new place among unfamiliar people? We have the perfect fix for you – NTU's freshmen orientation activities, which all newbies are encouraged to join.

From 29 July to 6 August, the schools, halls and "Big-Four" clubs are rolling out their respective orientation programmes with a common goal – to help freshies find their feet in NTU by meeting new friends and getting oriented with the campus.

FEEL AT EASE

It doesn't matter if you're extroverted or bashful. The activities are designed to be all-inclusive and will set you at ease. Many organisers reveal that their own experiences made them eager to make sure their juniors feel as welcome as they had been.

"Despite being introverted, I made many new friends. Even after orientation ended, we remained close and this made hall life a lot more fun. I hope we can bring the same impact to the incoming freshmen," says Banyan Hall's Adolphus Lee, a student of the School of Mechanical & Aerospace Engineering.

Adds Helen Choo, chairperson

FRESH STARTS

Find new friends and build lifelong memories at freshmen orientation. Seniors organising this rite of passage for NTU newbies give Derek Rodriguez a preview of an exciting week of games and themed adventures



of an orientation programme at the School of Electrical & Electronic Engineering: “I got to know both seniors and fellow freshies during my orientation. And just like how my seniors helped me when I faced difficulties, I want to keep a lookout for lost newbies too.”

GET A TASTE OF WHAT'S TO COME

For many, the complete varsity experience encompasses the activities of school, hall and special interest groups. Attending orientation programmes is a good way to get a taste of these various aspects of varsity life.

“The Clinical Sciences Building in our Novena campus is up and running, so it’ll be exciting to have some of our freshmen activities in this sleek state-of-the-art building. We also have a community involvement segment and a little surprise activity that sheds light on the impact a medical professional can have on patients,” shares Dorothea Ong, a second-year student from the Lee Kong Chian School of Medicine.

Says Muhammad Hafiz Mohamad, who is helping to organise the programme for both the School of Social Sciences and School of Humanities: “Freshmen can look forward to exciting activities that incorporate elements of their academic courses. For example, history students will play games themed around World War 1 while psychology students will find psychological theories integrated into their games.”

Timothy Yap, who chairs Ignite Change, the group organising the Welfare Services Club’s orientation programme, says: “Our aim is to ignite a passion to volunteer for noble causes. Freshmen can experience first-hand how we work with our beneficiaries and make an informed choice in serving one or more beneficiary groups, should they join our club in the future.”

“We often leave our hall room doors open and visit one another,” says Sophia Lim, chairperson of

the orientation committee in Hall 2. “More than integrating freshmen into varsity life, we welcome them to imbibe our rich *kampung* spirit. And it starts from forging strong friendships,” she explains.

JUST HAVE FUN

If you’re a fan of movies or board games, the thematic element woven into some orientation activities could leave you spellbound.

“Just like in Cluedo, freshmen will have to crack a murder mystery by figuring out who among them killed Sir Wakawaski, and how and where he or she did it. Expect alliances, betrayals, drama and crime!” say Joshua Ng and Ysabelle Torres, co-chairs of the Wee Kim Wee School of Communication & Information orientation.

“There’ll be lots of plot twists in our *Avatar*-themed orientation,” promises Lim Jia Qi from the University Scholars Programme. “While honing their skills and battling other groups, freshies will form close bonds not only among themselves, but also with their seniors and our faculty.”

“Our orientation groups are named after characters like Ixion from Final Fantasy and Tracer from Overwatch. And we’ve lined up an exciting programme that includes *The Amazing Race*,” reveals Haw Jiekang from the School of Materials Science & Engineering.

KEEP AN OPEN MIND

Come prepared to have good, clean fun with a change of clothes, some toiletries and, most of all, say seniors, an open mind.

Says Adolphus: “Don’t be afraid to talk to new people, be it seniors or freshmen. This will be one of the best platforms for strangers to become lifelong friends!”

Adds Dorothea: “NTU is a university with a plethora of experiences and opportunities, so don’t be afraid to delve into the unknown. Orientation is a good time to talk to seniors and see all the things NTU and your school have to offer.” 

SHAKE TO WIN

The new *HEY! Shake* app brings all NTU students to the yard, with more interactive content, campus store coupons and surprise gifts than you can shake your smartphones and tablets at.

Beginning with this year’s Freshmen Welcome Ceremony on 8 August, the *HEY! Shake* app will be available for download on iOS and Android devices.

A new technology fresh out of NTU’s labs, the app lets users interact with the many digital screens located around campus. Whenever you see the *HEY! Shake* app icon on a campus screen, simply open the app and shake your phone. Learn something new about NTU and follow the instructions to redeem prizes ranging from travel adapters to USB speakers. It’s that easy.

For more details, look out for the launch video on NTUsg Facebook, YouTube and *HEY! Online*.

HOW IT WORKS:



1 Download the *HEY! Shake* app.



2 Launch your *HEY! Shake* app and shake your phone when you see the icon on digital screens all over campus.

3 Like and follow @NTUsg Facebook and Instagram to redeem free gifts on the spot after the Freshmen Welcome Ceremony at a booth outside Nanyang Auditorium.



4 Turn on app notifications for more surprises and amazing giveaways every month.

(FEATURE)

One makes beer from bread while the other tells science stories, but both Tristram Stuart and Prasenjeet Yadav aim to save the earth. The National Geographic explorers shoot the breeze with Derek Rodriguez before their talks at NTU this August

PHOTO: PRASENJEET YADAV



PHOTO: IAN LOCKWOOD



MEN ON A MISSION

Lens Health



PHOTO: PRASENJEET YADAV

Molecular biologist-turned-roving explorer **PRASENJEET YADAV** realised early in his scientific career that his true calling was outside the laboratory, with a camera. But he is not your average wildlife photographer. He travels the globe using photos

to shed light on issues such as climate change and green energy, and coaching scientists on how to showcase their work to a broader audience.

From scientist to storyteller

Although science fed my curiosity of the world, I felt that what I was discovering about nature was restricted to fellow scientists who did not understand why ecology and conservation science were a big deal. At the same time, I was a passionate photographer. I believed that through my photos, I could tell science stories without compromising on the details of the subject. So I started collaborating

with researchers, using photos to help them share their stories.

We are all in this

We don't have enough empathy for the natural world and often fail to be aware of how much our lives are connected to nature. Every animal on earth is playing a role. A small blue-eyed frog or a beetle is as important as a tiger or a man, and we need to understand this as co-inhabitants.

A spectacular view of the ordinary

It's easier to take photos of exotic species, but the real skill is in creating a memorable image of common subjects like ants, bees and

spiders. The real magic happens when you take a unique photo of these. That's why my favourite photos are those I've taken of frogs, ants and reptiles instead of tigers and meteors.

Close shaves

I've escaped the jaws of an angry tiger and have been chased by elephants, and I almost got bitten by a King Cobra once. I've endured extreme conditions to get shots, such as when I attempted to document isolated sky island mountains from the sky. But my closest brush with death was when my microlight aircraft crashed and I survived despite the body of the plane rupturing into pieces.

Paradise on earth

If I could revisit any place, it would be Eravikulam National Park in South India, one of the most beautiful places I have ever seen.

When work is passion

I don't have any affinity for Sunday and I don't have any fear of Monday. My work allows me to be one with nature, see new species, learn their stories, understand new perspectives and, most importantly, share all these with others. No borders or disciplines restrict me.

Weirdest thing I've written home about

Getting peed and pooped on by animals, bathing with dog soap to get rid of ticks and being slapped by a monkey!

Next big thing

I'm planning to expand my "Shoot for Science" initiative where I train scientists in science communication using visual media. I am also heading to the Himalayas to work on a story on the notoriously elusive snow leopard.

Hunger Management



*Since discovering how much food supermarkets threw away when he was 15, **TRISTRAM STUART** has been a man on a mission against food wastage. The author and activist works with governments and businesses around the world to help make food waste a global issue.*

Food for thought

We waste a third of the world's food, and yet there are hundreds of millions of hungry people. Food production also has a huge impact on the planet. For instance, the forests of Southeast Asia are being destroyed and the orangutan is being wiped out in the quest to grow more food. If we want to avoid the worst consequences of climate change and still feed ourselves, we have to dramatically reduce food waste.

Role models

I was really struck by the Uyghurs in China when I was doing research for my book on global food waste. They regard food waste as taboo and it permeated every layer of their food culture – in restaurants and in homes. There, you order dishes according to how hungry you are, and you are expected to finish everything.

Bread to beer

In the UK, we eat plenty of sandwiches. When I first visited a sandwich factory, I couldn't believe they threw away four slices of bread for every loaf! That's why I set up Toast Ale, to turn that fresh bread into craft beer instead of letting it go to waste.

Technology bears fruit

Toast Ale is my favourite food-wastage prevention innovation but there are

other great ones, like food sharing app Olio, which allows people to donate and collect quality leftovers from one another and from stores, and Winnow Solutions, which helps kitchens cut food waste by automatically measuring what's put in the bin.

Literary edge

I very nearly studied biology. I chose English literature because I wanted to write books. It's also a key to understanding how cultures are constructed over time, and how individuals and groups can change those cultures by constructing and disseminating ideas that shift public discourse and behaviour, which is what I am doing!

Take it from beer

When I was a student at Cambridge University, I ran an environmental action group. We funded it ourselves by selling beer at college parties and events. Things have come full circle with Toast Ale, which diverts all profits to Feedback, the environmental organisation I founded.

Another passion

I'm a hunter-gatherer at heart – I love hunting and foraging for mushrooms and other wild food. Recently, I spent an afternoon collecting a bucket of cockles and mussels, and plenty of sorrel, a delicious leaf found in pastures. It's how I connect to the natural world.

Millennials' moment

I am extremely envious of young people growing up now, who are skilled from the start in crowd-sourcing on the internet. They think for themselves in an entrepreneurial, collaborative way, defying the mould of established institutions, and use their talents to do good in the world, not just make money at the expense of our planet.

Aim for this

Buy what you need, and eat what you buy. 

(FEATURE)



GOING GOOGLEY

Here's a neat trick: Tell anyone you've got a job at Google and watch their jaw slump to the floor. Google's staff welfare and generosity are well documented. Who hasn't heard of its famous in-house massage rooms, all-access sleep pods, gaming and entertainment lounges, as well as its expansive, fully-stocked, all-day kitchen?

Is it any wonder, then, that Singapore's university students pick it as the best company to work for? This distinction has been held by Google for the last three years, in annual rankings of the 100 ideal employers in Singapore by employer branding firm Universum that polled 8,800 business and engineering undergrads this year.

Google's offices are designed to encourage meetings of minds. Their flexible work spaces motivate Googlers – as staff are known – to change their views, and work in groups or privately. Themed immersion rooms such as the

FOR Google

Google has been named the top employer by students for the last three years. Peter Yeo speaks to NTU grads for an inside view



“biker bar” are filled with props to get creative juices flowing. Even the atrium was created to bring everyone – clients, users, partners and employees – together to share the Google culture of innovation.

Head of Google Communications in Singapore, Angeline Leow, who graduated from NTU's Wee Kim Wee School of Communication & Information in 2009, explains that the office is “designed around the goal of creating open, collaborative spaces to help Googlers from different teams interact and spark new ideas”.



"I BELIEVE THE MAIN REASON WHY EVERYONE WANTS TO WORK AT GOOGLE IS THE WAY THE COMPANY EMPOWERS ITS EMPLOYEES TO TRY NEW THINGS, AND HOW IT TREATS ITS EMPLOYEES AS FAMILY BY TAKING CARE OF THEM THROUGH THE VARIOUS PERKS AVAILABLE."



"Some of our products like Gmail were created as a result of these 'casual collisions,'" she adds.

For outsiders looking in, it seems unlikely that Google could stay productive in the face of the perks, but nothing could be further from the truth.

In 2007, Google employee #107, Tan Chade-Meng, also Singapore's first Googler at its Mountain View headquarters in the US, started the Search Inside Yourself mindfulness programme after a very fulfilling career with the tech giant. Chade-Meng had introduced the programme after he noticed Googlers were so task-oriented that they could not switch off at the end of the day. While the NTU computer engineering alumnus had tried to introduce mindfulness before this, it was repackaging it with emotional intelligence that brought the movement global.

Chade-Meng had the foresight to see that the way Googlers worked was not sustainable. Today,

besides the Search Inside Yourself programme, Google provides myriad ways for employees to stay healthy with standing desks, 24-hour gyms, as well as healthy snacks and meals. While Google stocks all manner of snacks, including chips, the healthier options are always in line of sight and within reach.

Derrick Wong, an NTU engineering graduate with an MBA from the Nanyang Business School, says: "The perks are supposed to help with productivity. Working at Google is a marathon and not a sprint. Knowing that there are various ways to recharge allows us to focus on our tasks and perform better overall!"

Derrick should know – he designs, builds and operates environments that inspire Googlers as well as encourage them to be collaborative and productive.

Angeline tells us why Google is a great place to work: "It is a unique company with so many exciting products – YouTube,



Android, Search, Maps, Translate, Photos and many more. Seven of our products are used by more than one billion people worldwide – that's an incredible opportunity to impact people's lives and help make the web a more inclusive experience for all."

"I believe the main reason why everyone wants to work at Google is the way the company empowers its employees to try new things, and how it treats its employees as family by taking care of them through the various perks available," adds Derrick. 

AT MY PEAK

BY NUR YUSRINA YA'AKOB

Growing up in a *kampung* on Pulau Ubin, my childhood was different from most other kids in Singapore. It was during this time that my love for the outdoors grew, and I enjoyed every moment of it.

However, the demands and pressures of everyday life quickly caught up with me.

Like most Singaporeans, I became preoccupied with work, school and other pressing daily matters. In between

jobs for about a year at one point, I worried if I could give my parents their monthly allowance as well as pay the monthly instalments for my scrambler.

But sometimes, you need a jolt to bring things into perspective, and the importance of living every moment to its fullest. This came during my 77-day expedition to Mount Everest with Dr Arjunan Saravana

Pillai, my former teacher at the National Institute of Education, and NTU alumnus Jeremy Tong, whom I got to know through our common objective of climbing the world's highest mountain.

We hear many stories of fatalities on Everest. But it doesn't hit you until you actually cheat

death yourself.

It happened soon after I started my descent from Everest's 8,848-metre-high summit. Coming down from the peak can be just as, if not more, dangerous than getting there. Having achieved their goal of summiting Everest, climbers sometimes let their focus drop. This is made worse by the intense fatigue and severe lack of oxygen. There's a very good reason why being more than 8,000 metres above sea level puts you in the "Death Zone".

Near the famed Hillary Step, one of the other climbers in my group slipped and fell. As we were all hooked onto the same climbing rope, I got pulled along and fell off the side of the steep mountain face. It all happened in a flash, but I recall thinking it was the end for me. I'm only 30 years young, and still have a lot of things to tick off my bucket list!

As I was airborne, I was

The 77 days that Yusrina, Jeremy and Dr Saravana (left to right) spent together on Everest will impact them forever.





Pumori, the highest peak in the background, overlooks the infamous Khumbu Icefall (foreground) on Everest's south face.

"NEAR THE FAMED HILLARY STEP, ONE OF THE OTHER CLIMBERS IN MY GROUP SLIPPED AND FELL. AS WE WERE ALL HOOKED ONTO THE SAME CLIMBING ROPE, I GOT PULLED ALONG AND FELL OFF THE SIDE OF THE STEEP MOUNTAIN FACE."

Even before my summit attempt, I was plagued by unproductive thoughts. For example, when we approached Pumori, a mountain known for its excellent view of Everest, I became apprehensive and refused to look at it. A massive

earthquake in 2015 resulted in a deadly avalanche on Pumori. That earthquake also ended another expedition that I was a part of. But eventually, I forced myself to confront Pumori as we had to climb it to get used to the high altitude. Besides, I had to see where I was going!

At Everest, the weather can change in an instant, from bright, cloudless skies to howling blizzards in the blink of an eye. Not surprisingly, we often had to wait for bad weather to clear. We learnt patience to weather the storm.

Spending 77 days away from home, in some of the most dangerous and inhospitable places on this planet, has made me appreciate the little things again, including my parents.

I inherited my parents' resilience, work ethic and sense of adventure. My father used to paint buildings, suspended with ropes, and he's also worked in a quarry. My mum, like me, rode a scrambler and joined a uniformed group when she was in school. She played hockey too.

All that I went through in the past decade – from first setting eyes on Everest during a trek up the nearby Mera Peak in 2008, to toiling for my dream and finally braving the perilous conditions, including the infamous Khumbu Icefall – culminated in just 30 minutes at the pinnacle of the world's highest mountain. But it was worth it.

When I finally got home, I had to re-acclimatise to the heat and humidity after spending almost three months in sub-zero temperatures. One of the first things I did was hop on my beloved scrambler. I really missed taking her for a spin.

I don't know if I'll ever set foot on the top of the world again, but this expedition has been a humbling journey. I am all set to scale new peaks.

During one of our acclimatisation climbs, I was star-struck at meeting the famous Swiss mountaineer Ueli Steck. But two days later, he fell and died. You don't know what's going to happen tomorrow.

Build your dreams today – and dream big. While bigger dreams are more challenging, nothing feels as awesome as overcoming the toughest parts that will also define your character. That feeling of accomplishment is priceless. So just do it. And let go of those hang-ups. 

Nur Yusrina Ya'akob is a trainee teacher at NTU's National Institute of Education. In May, she became the first Malay-Muslim woman from Singapore to reach the summit of Mount Everest, the world's highest mountain.



The treacherous Khumbu Icefall at an altitude of 5,486 metres.

suddenly pulled back towards the mountain like a slingshot. Miraculously, I somehow missed all the rocks and jagged edges protruding from the side of the mountain. Not only was I unscathed, I literally landed on my two feet on a rock and managed to haul myself back up!

Had I fallen all the way, it would have been a drop of about 3,000 metres down the south face of Everest. The rope saved me, but I simply couldn't explain why I escaped without a single scratch. That led me to believe I must have been protected by a higher being.

That close shave was a lesson to live in the moment and not be weighed down with worrying about things beyond my control.



Freshmen and old hands both wonder about life at NTU. Andrew Duffy raises three questions you might never have thought of asking and answers them tongue in cheek

THE UNOFFICIAL GUIDE TO NTU

What keeps The Wave up?

Malay boat-builders and Thai house-builders mastered the art of construction without using glue or nails. The Wave is more technologically advanced. While made of wood, it actually hovers a few millimetres above ground on a cloud of well-cooled air, not unlike a hovercraft. If you're in the top row of seats and lean back against the wall, you'll feel it move a few centimetres, so please don't. More remarkable still, its structural integrity relies entirely on the simple belief that it will not fall down. This, naturally, depends on every member of the

NTU community believing that a building the size of a football field can hover delicately just above the ground despite weighing slightly over what I imagine to be 273,000,000,000 metric tonnes. Dangerous? Possibly. Insane? Almost certainly. But that is the essence of sports – the athletes require total self-belief that they will win. The second any athlete starts to doubt, the cracks will appear and their game will collapse. And the second anyone at NTU starts to doubt the ability of The Wave to stay upright, then cracks will appear and... well, the rest doesn't bear thinking about. So let's all believe.

Why do we have a blue running track around campus?

There are actually two questions here, so I'll take them one at a time. Why do we have a bouncy rubberised running track at all? The rumour is that the Ministry of Defence, better known as MINDEF, asked for the track to be installed so that the two-year National Service (NS) that makes men out of boys wouldn't wear off too quickly, and NTU's male students will stay operationally ready for years to come. And as a journalism professor tasked with upholding truth, accuracy, objectivity and fairness,

I'm going to go with that completely unproven rumour because it makes campus life much more interesting if you believe it.

Either that, or when ex-NSmen arrive on campus and smell the cordite from the Singapore Armed Forces' firing range behind the campus, they're like lions suddenly released from a cage into the heart of Africa and scenting the freedom of the Serengeti — they just need to *run*. (And, by the way, campus males, thanks to the running track, your knees will be fine until about a year after reservist ends. That's correct: MINDEF gets the best years of your knees.)

You'll also notice that the bouncy blue running track doesn't go along the edge of the campus that faces the expressway. This is either because a) it's unhealthy to breathe in the pollution from an eight-lane highway or b) the temptation to cross the bridge and go for supper might be too much for

the runners, and then they'd never get fit. You choose.

But why is the running track blue? Why, on this green, semi-rural campus, did we end up with a running track so blue that it looks like a new line on the Mass Rapid Transit (MRT) map? There you have the answer: In the absence of our own MRT line, we have something that looks a bit like it. And the 179 bus.

Where does Nanyang Drive end and Nanyang Crescent begin?

This has baffled Uber drivers and the students calling them for months now. It is, of course, a question of theoretical physics. The road is *both* Nanyang Crescent and Nanyang Drive at the same time but at different places. Like Schrödinger's Cat, it exists simultaneously in both states and only takes on one form when you want it to take on the other.

In addition, following

Heisenberg's Uncertainty Principle (as I understand it, rather than as it's taught in the School of Physical & Mathematical Sciences), the more certain you are that you're on Nanyang Crescent, the greater the likelihood that you're actually on Nanyang Drive. And the higher the chance that Google Maps is telling the Uber driver to go to Nanyang Drive, the higher the probability that he will actually be on Nanyang Crescent. Going the wrong way.

This phenomenon of theoretical physics alternate realities isn't confined to NTU's roads, by the way. Uber cars also exist in dual competing states simultaneously: They can be both at Chinese Garden and "3 minutes away" *at the same time*. Amazing. 🤖

Andrew Duffy is an Assistant Professor at the Wee Kim Wee School of Communication & Information. He has previously worked for The New Paper and The Straits Times.

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(#SEEINGTHINGS)

BY CHRYSTAL CHAN



Join me down by the water's edge.



Spotted at The Wave's official opening: national sprinter and NTU alumna Dipna Lim Prasad.



Who's turning heads at the medical school?



Taking NTU to greater heights.



You are the sunshine of my life.



Behold this NTU library.



A Hive-five for the happy couple.



Climbing stairs never looked this good.



Enjoy fun times out of the blue.



A sunsational moment.

PHOTOS: INSTAGRAM FEED OF @SALPHABET, @EUGENE_NY, @DIPNALIM, @JON_MELOWISH, @DONLAUBS, @YV, DANIEL_HJ, @NJUNS, APRIL, @FLADICT AND @_LEBING

(THE BIG PICTURE)

TROPICAL TRILLS

We're hooked on this Oriental Pied Hornbill at the School of Art, Design & Media.

Lau Hui Xing (Asian School of the Environment)

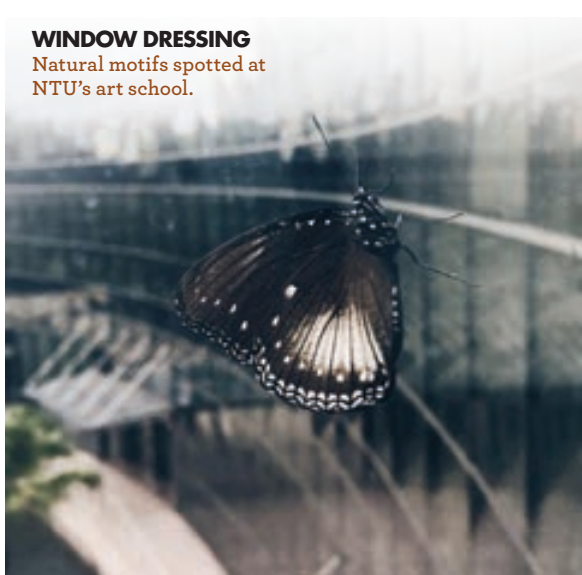
WILD ABOUT NTU

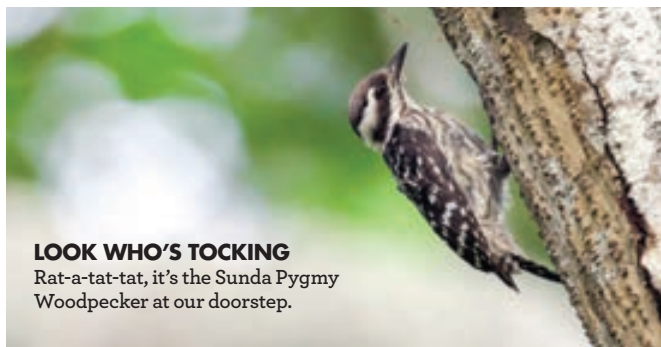
NTU's garden campus, named one of the world's 15 most beautiful, is a haven for wildlife, from birds to butterflies. Kwok Pei Fang unearths a few prized snaps from nature watchers on campus

WINDOW DRESSING

Natural motifs spotted at NTU's art school.

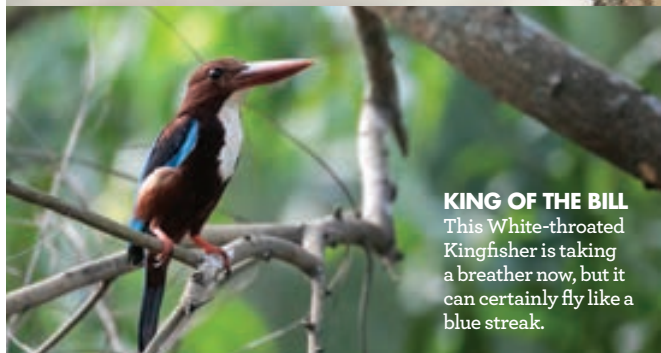
Vanessa Christie Goh (School of Art, Design & Media)





LOOK WHO'S TOCKING

Rat-a-tat-tat, it's the Sunda Pygmy Woodpecker at our doorstep.



KING OF THE BILL

This White-throated Kingfisher is taking a breather now, but it can certainly fly like a blue streak.



LOUNGE LIZARD

Take a leaf from this Changeable Lizard.



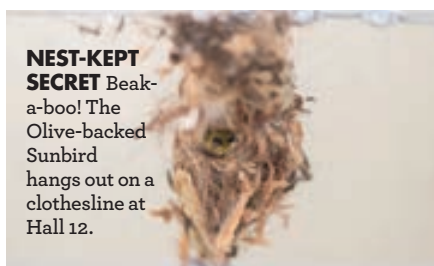
BIRD'S EYE VIEW

The early Blue-throated Bee-eater catches the worm.



FIRST LESSON IN GRASSHOPPER SCHOOL

Look before you leap.

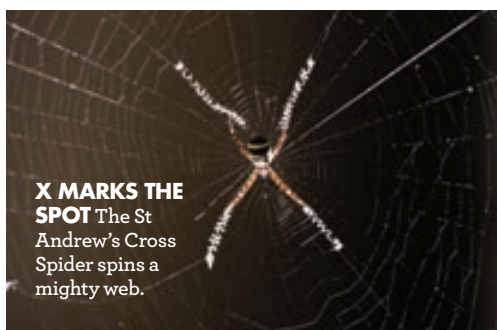


NEST-KEPT SECRET

Beak-a-boo! The Olive-backed Sunbird hangs out on a clothesline at Hall 12.

WING BLING

In a test of looks, the Common Leopard Butterfly passes with flying colours.



X MARKS THE SPOT

The St Andrew's Cross Spider spins a mighty web.



ROBIN'S HOOD

The Oriental Magpie Robin struts its fluff at Pioneer Hall.

Nicholas Yeo (Wee Kim Wee School of Communication & Information)



NATURE'S PECKING ORDER The Great Cormorant, a rarely spotted fisher-bird, looks for its next meal at Nanyang Lake. 

(GIVEAWAYS)



BYE BYE, BLEMISH

Face the brand-new semester fresh and ready with an acne solution kit (worth \$38.90) from THEFACESHOP.

To stand a chance to win this, name two NTU professors who are friendly faces not just in real life, but on social media too.

PROMOTION CODE: **ACNE FIX**



PRECIOUS MEMORIES

Capture your convocation memories with snapshots from The Pixel Flair.

To stand a chance to win a photography package (worth \$280*), name any three companies NTU graduates from the Class of 2017 featured in this issue will be heading to.

**The package includes a one-hour shoot at one location for a maximum of two persons.*

PROMOTION CODE: **PHOTOGRAPHY PACKAGE**

STAY FRESH

Three brave souls from NTU faced freezing temperatures and thin air as they scaled Mount Everest in May.

Name the NTU adventurer who made it to the summit and you could be among 12 winners of Crème Simon's oxygenating day cream (worth \$99 each).

PROMOTION CODE: **FACIAL KIT**



ALL YOU KNEAD

Soothe away your aches and pains with a relaxing, aromatic full-body massage (worth \$40) or an oxygen face-lifting treatment (worth \$51) at a Chrysalis spa near you.

For a chance to be one of 22 lucky winners, name one NTU invention in this issue that might make our daily lives more comfortable.

PROMOTION CODE: **MASSAGE THERAPY**

TERMS AND CONDITIONS FOR ALL GIVEAWAYS Email your answer, with the respective promotion code (e.g. Facial kit) as the subject line, to hey@ntu.edu.sg by 20 August 2017. Include your full name, school and year of study or graduation (if applicable), contact number and email address in your entry. Only one entry per person for each giveaway will be accepted. Winners will be picked from those with the correct answer in a lucky draw and informed via email. All prizes are to be collected from the Corporate Communications Office, NTU.



LIFE'S A BOON

Accountancy graduate and singer-songwriter Boon Hui Lu, 23, was ecstatic when her YouTube cover of a hit song garnered a staggering 20 million views within two months. Eileen Tan finds out what else is music to this songbird's ears

Two years ago, you turned down a job offer from a big accounting firm to pursue your love of singing and acting. What's keeping you busy so far?

I am still trying to get used to being a full-time musician. I write songs in my free time and do covers to connect with my supporters on social media.

So how do you feel about the success of your cover of *Stranger in the North* by Namewee that you filmed on a low budget at the Marina Bay Sands Promenade?

Getting over 20 million YouTube views was something I never expected in my wildest dreams! Maybe it's just luck.

What do your parents think of the viral video?

When the MV started going viral, they kept checking the viewership figure every hour on YouTube, with huge grins on their faces. They are my ultimate fans.

Did NTU play any part in your pursuit of music?

In my second year, I took an elective in pop and jazz taught by Assoc Prof

Larry Francis Hilarian, the most peace-loving prof I have ever met. He would tell us how music is love and how it can change the world. Taking his elective and learning from him



played quite a pivotal role when it came to choosing music as a career. **He sounds like a cool prof. And good thing you took that elective!**

I had other great teachers, like my accountancy lecturer, Mr Goh Kia Hong. His clicker quizzes had special sound and text effects, and almost hilarious pictures. Once, he rewarded us for doing well in our mid-term test. Those who scored A got apples and the B-graders got biscuits. I got Oreo cookies and felt awesome that day! **How else did he inspire you?**

He was always going the extra mile for his students. I remember looking at him teach and feeling inspired to do something I love and have passion for, in the hope that I can pass on those good vibes to others around me.

That's wonderful. Do you still hang out with your friends from NTU?

We catch up now and then. I met my music partner, Waiihoong, in NTU. He's graduating this year. We met during the pop and jazz elective and started jamming after that. We joined music competitions and started a YouTube channel doing covers, where I sing and he does the music arrangement and video production. It has been a great partnership.

Taiwanese singer Hebe Tien featured your compositions in her album. What would you like to do with her next?

A duet or stage performance together would be cool.

Ever thought of filming an MV at The Hive in NTU?

I would love to explore its every nook and cranny. I think this MV calls for a cover of a song by famous pop singer Stefanie Sun, who is a fellow NTU graduate.

If you could do a cover of a song for the NTU Convocation ceremony, which song would you pick?

Imagine by John Lennon. It was a classic during my gigging days. It speaks about how we can make our dreams a reality if we dare to imagine. 

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