

# SiTIZEN

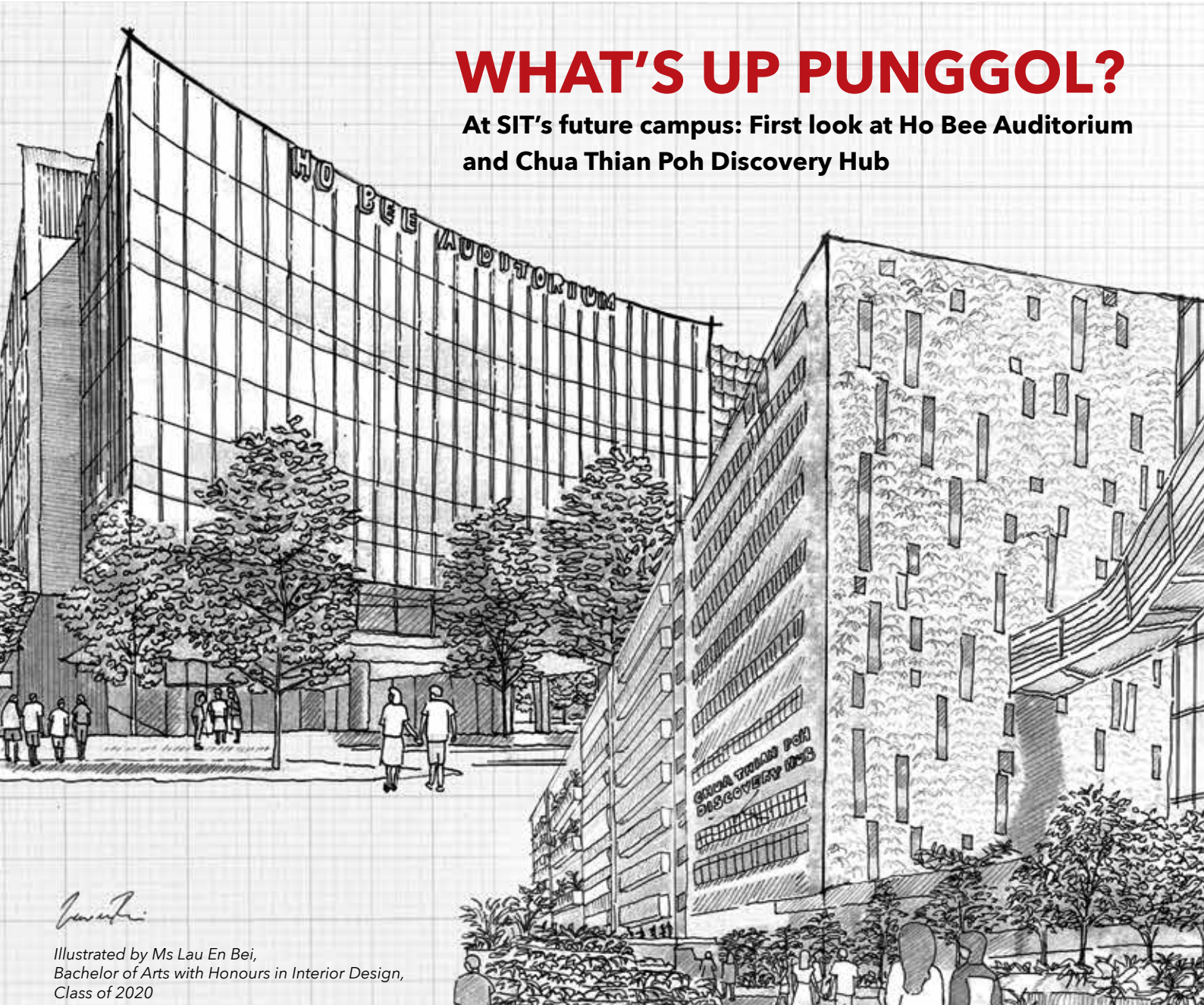
Once a SiTizen, Always a SiTizen



Bi-Annual  
July 2022

## WHAT'S UP PUNGGOL?

At SIT's future campus: First look at Ho Bee Auditorium  
and Chua Tian Poh Discovery Hub



*Lau En Bei*

Illustrated by Ms Lau En Bei,  
Bachelor of Arts with Honours in Interior Design,  
Class of 2020

**New Degree Programmes in Academic Year 2022/23**

**Revolutionising Food Sustainability**

**SIT Gets FoodPlant and Centre for Infrastructure and Tunnel Engineering**

**SiTizen's Space Illustrations Draws NASA's Attention**



## Contribute!

We want to hear from you! Should you like to contribute a story to share with the SITizen community, please contact us at [Alumni@SingaporeTech.edu.sg](mailto:Alumni@SingaporeTech.edu.sg)

### Contact Us:

SIT Advancement & Alumni Division  
Singapore Institute of Technology

SIT@Dover  
10 Dover Drive  
Singapore 138683

☎ 6592 3314 / 6592 2129

✉ [Alumni@SingaporeTech.edu.sg](mailto:Alumni@SingaporeTech.edu.sg)

🌐 [www.singaporetech.edu.sg/alumni](http://www.singaporetech.edu.sg/alumni)

📷 @sitalumni



SITizen Bi-Annual is a publication by the SIT Advancement & Alumni Division.

For enquiries, please e-mail us at [Alumni@SingaporeTech.edu.sg](mailto:Alumni@SingaporeTech.edu.sg)

(C) Singapore Institute of Technology 2022



### What's Up Punggol?

SIT's future campus in Punggol, due for completion in 2024, will feature the Ho Bee Auditorium and the Chua Tian Poh Discovery Hub, two distinctive facilities made possible by Dr Chua Tian Poh

### Mr Bill Chang Succeeds Mr Ng Yat Chung as Chairman of SIT Board of Trustees

Appointment takes effect from 16 March 2022

### A Sweet Appreciation for Prof Tan

Close to 160 staff received their 'golden tickets' to attend the intimate affair in-person and express their heartfelt thanks to Prof Tan for dedicating nine years of service as SIT's President

### SIT Launches Applied Artificial Intelligence and Digital Supply Chain Programmes

Commencing in September 2022, the two new BSc degrees aim to nurture specialised talents proficient in leading technological transformation

### New Applied Computing with a Specialisation in Fintech Degree Programme to Develop Talents for Financial Services Sector

3-year direct honours programme by SIT, launched in partnership with IMDA and MAS, will equip graduates with both technical skills and financial domain knowledge

### SIT and Siemens Announce New Degree Specialisation in Engineering at Opening of Applied Learning Conference 2022

The new degree specialisation in the Robotics Systems Programme will enable companies to build Industry 4.0 capabilities

### LTA and SIT Establish Centre for Infrastructure and Tunnel Engineering

Partnership seeks to foster greater collaboration in research & development, as well as educational and training programmes in highly-specialised field

### Research for the Real World: Revolutionising Food Sustainability

How SIT is using research to tackle national concerns in Singapore such as food sustainability

### SIT, Enterprise SG and JTC Jointly Launch FoodPlant to Advance Food Innovation

The \$13 million facility will bolster Singapore's food innovation scene through Small-Batch Production and R&D

### SIT and ISACA Singapore Chapter Sign MOU to Advance Student Development in Technology

Collaboration spanning areas such as academic awards, student development, talks and workshops will expand opportunities for real-world experience for SIT students

### SIT and TCOMS Form Strategic Partnership for Applied Research and to Jointly Nurture Engineering Talent

The MOU will strengthen Singapore's R&D efforts in sustainable maritime engineering and grow a future talent pool

### AiSP and SIT Collaborate to Enhance Singapore's Cybersecurity Ecosystem

Both organisations will conduct professional training courses and share best practices in the cybersecurity community

### SIT and AMILI in Partnership to Advance Asian Gut Health R&D

Partnership seeks to deepen symbiotic industry-academia collaborations in applied research and talent upskilling

### Advancing Ageing Research in Singapore

How can older persons maintain better mental and physical function? The answer is through exercise and housework, according to recent studies

### Bespoke Hip Protector Enhances Safety of Fall-Prone Seniors

Developed by SIT and G4 Pte Ltd, the lightweight and breathable EXO+ hip protector offers protection for Ren Ci Hospital's nursing home residents

### The Promise of VR for Patient Rehabilitation

The university's Virtual Reality (VR) Mobility Training project aims to explore ways in which VR can help patients with mobility constraints relive meaningful daily experiences

### Mixed Reality App by SIT Faculty Debuts at Singapore Airshow 2022

Interdisciplinary team comprising SIT faculty and industry partners HOPE Technik and HelloHolo debuts a mixed reality application for design engineering and finite element analysis at Singapore Airshow 2022

### SITizen's Space Illustrations Draw NASA's Attention

NASA sending Digital Communications & Integrated Media student Mr Jarrod Chua a direct message on Instagram is the start of great things to come

### Hacker Turns Award-Winning Cybersecurity Defender

Alumnus and Cybersecurity aficionado Mr Yu Pengfei, winner of the Student Award at the Association of Information Security Professionals (AiSP) Cybersecurity Awards 2021, encourages an open and inclusive cybersecurity community through the N0H4TS movement

### Passing on a Legacy of Success

A new generation of Hospitality Business, Digital Communications and Integrated Media, as well as Civil Engineering undergraduates will be supported by the ELK Bursary at SIT

### When Rotarians Come Together

New scholarship at SIT to nurture academically talented leaders, thanks to the Rotary Club of Tanglin and Mr Alvin Goh

### Yusof Ishak Scholars: SIT's Budding Service Leaders for Tomorrow

Brimming with promise, purpose and passion, the first 3 recipients of the Yusof Ishak Scholarship share their dreams and aspirations with SITizen

### Over \$1 Million Raised to Establish Sang Nila Utama Scholarship

The endowed scholarship aims to nurture first movers who will drive growth areas of the economy

### Capital! SITizens Get a New Bursary to Count On

Bond Capital Bursary, made possible by Mr Lim Sze Wee, will nurture deserving undergraduate students throughout their entire course of studies from AY 2023/24 onwards

### It's So Much More than Collecting a Certificate!

The certificate collection sessions give scholars and award winners a special bonding opportunity to share their passions and future hopes

### The Mapletree Challenge 2022 Grand Final

Five teams battled it out to showcase sustainable innovation solutions that address societal concerns and challenges

### Strategise, Support and Shoot!

SITizen Ambassadors meet at long last, getting to know one another better over an exciting game of laser tag

### Great to Mentor in Person Again

After a long period of only being able to communicate virtually, participants of the SIT Alumni Mentoring Programme are finally enjoying face-to-face activities with the easing of COVID-19 restrictions

### A Battle of Brawn and Brains... at ICG 2022!

Health & Social Sciences Cluster retains its championship title while the Alumni Cluster clinches third place

### A Zoomin' Good Time

SIT Alumni Network events continue to be a hit among alumni who were looking to stay fit, make crafts, and even learn how to invest!

### Spin to the Beat!

SITizens get an exhilarating ride to fitness at Spin Class, the first physical SIT Alumni Network event after a long hiatus

### Bringing Joy through Service

SITizen Ambassadors Mr Gaivin Tey and Mr Darren Loo are making positive ripples in the community through volunteer work

### Meet Our 'Cover Girl'!

SIT Alumnus, former Ho Bee Scholar and illustrator of this issue of SITizen Bi-Annual's cover Ms Lau En Bei shares how she's happy to be able to witness the progress of SIT's new Punggol campus firsthand

# DEAR READERS

## What's Up Punggol?

While the COVID-19 pandemic may have thrown a spanner in the works for the past two years, it did not put a damper on the excitement for SIT's future campus in Punggol. Due for completion in 2024, SIT's new home in the Punggol Digital District will be where the reimagining of higher education can take place within a community setting. This issue features the first of a two-part series on SIT's future campus, where we take a closer look at two distinctive facilities, the Ho Bee Auditorium and the Chua Tian Poh Discovery Hub – both made possible by Dr Chua Tian Poh, the Founder and Executive Chairman of Ho Bee Group.

This issue of SITizen also welcomes Mr Bill Chang, Chief Executive Officer, Group Enterprise and Country Chief Officer Singapore of Singtel, who succeeded Mr Ng Yat Chung as Chairman of SIT Board of Trustees with effect from 16 March 2022. Mr Chang will work closely with the management and stakeholders of the university to shape its mission, chart major directions and guide significant initiatives to produce a strong and enduring impact for SIT.

As Singapore's University of Applied Learning, SIT is offering three new undergraduate degree programmes for Academic Year 2022/23: Bachelor of Science with Honours in Applied Artificial Intelligence (AAI), Bachelor of Science with Honours in Digital Supply Chain (DSC) and Bachelor of Science with Honours in Applied Computing with a specialisation in Fintech. The AAI and DSC programmes aim to nurture specialised talents proficient in leading technological transformation while the Applied Computing programme will equip graduates with both technical skills and financial domain knowledge.

Working closely with industry and agencies to tackle challenges of national importance, SIT is using research to tackle one of Singapore's concerns – food sustainability. SIT is embarking on a four-year joint research programme with Agropcorp to understand how to sustainably produce plant-based food alternatives that are both nutritious and affordable. Together with Enterprise SG and JTC, SIT has also jointly launched the FoodPlant. The facility will contribute to Singapore's transformation as a food innovation hub by bolstering Singapore's food innovation scene through small-batch production as well as Research and Development.

In the meantime, SITizens continue to stay connected through SIT Alumni Network events held over Zoom, and with the easing of safe management measures, they finally gathered for Spin Class, the first physical SIT Network event after a long hiatus! Participants of the SIT Alumni Mentoring Programme also relished face-to-face activities over mentoring dinners and the Cycle 1 & 2 Appreciation Ceremony after a long season of virtual communication.

*Please turn the pages for these stories and more – we hope you will enjoy them, and should you have any feedback, do drop us a line at [Alumni@SingaporeTech.edu.sg](mailto:Alumni@SingaporeTech.edu.sg)!*

SIT Advancement & Alumni

# What's Up Punggol?

SIT's future campus in Punggol, due for completion in 2024, will feature the Ho Bee Auditorium and the Chua Tian Poh Discovery Hub, two distinctive facilities made possible by Dr Chua Tian Poh

At the heart of Singapore's Punggol Digital District (PDD), an exciting new vision is materialising. Equivalent to the size of about 17 football fields, the future campus of the Singapore Institute of Technology (SIT) will be where the reimagining of higher education can take place within a community setting. A living lab that integrates applied research and innovation for SIT and its partners, it will be an open eco-system that actively invites the industry

and community to collaborate and learn. Some 12,000 students to be nurtured in this living lab will be able to find out about the latest industry developments and know-how, through participating in interdisciplinary projects and the test-bedding of smart technologies.

Envisioned as the Punggol Digital District's knowledge hub, the new campus will be where SIT staff and students – together with the industry and community

– work on new technologies and their applications to address the most challenging issues, including climate change and sustainability, digitalisation, food security and community healthcare.

Among the distinctive facilities giving shape to this new educational landscape are the **Ho Bee Auditorium** and the **Chua Tian Poh Discovery Hub**. Both have been made possible at SIT by philanthropist Dr Chua Tian Poh, the Founder and Executive



Artwork of Ho Bee Auditorium and Chua Tian Poh Discovery Hub by SIT alumnus Ms Lau En Bei.



Unveiling the Ho Bee Auditorium at the SIT@Dover campus in 2019.

Chairman of Ho Bee Group, with support from the Ministry of Education through Enhanced Government Matching Grants.

SIT's Ho Bee Auditorium – at Punggol and at Dover where SIT's current interim campus is located – was named in 2019, thanks to endowed gifts totalling \$3.25 million from Ho Bee Land Limited that also enabled SIT to establish in perpetuity the Ho Bee Scholarship to nurture academically promising undergraduate students from nine degree programmes (ranging from Engineering to Information and Communications Technology). These gifts from Ho Bee Land Limited were the first to be received by SIT for its future campus in Punggol.

Less than three years later, in 2022, SIT named the Chua Tian Poh Discovery Hub at Punggol (as well as the Chua Tian Poh Student Activities Centre at SIT@Dover in the interim, before its move to Punggol scheduled for 2024). The namings were in recognition of a new endowed gift of \$2.6 million from the Chua Foundation, which has also enabled SIT to make available in perpetuity the Chua Tian Poh Bursary for financially disadvantaged undergraduate students at SIT.

The Chua Foundation was set up and funded by Dr Chua and his siblings to continue the legacy of their late mother, Madam Seah Sar, and to remember the values she stood for. Madam Seah always emphasised the importance of education, despite having little education herself and was very keen to help those in need. Following her example in nurturing the next generation and aiding the underprivileged, the Chua Tian Poh Bursary seeks to give SIT students the confidence to reach their true potential.

In both his private and public capacities, Dr Chua's support for SIT and its students has been transformative. His friendship with SIT began as far back in 2012, when he made possible the



The naming ceremony for the Chua Tian Poh Discovery Hub took place on 26 January 2022 at SIT@Dover.

SIT-Chua Tian Poh Scholarship in support of a student who needed urgent financial assistance.

At the naming ceremony for the Ho Bee Auditorium, which was held on 1 July 2019, Dr Chua, who was then Chairman and CEO of Ho Bee Land, said: "As the University of applied learning in Singapore, the approach taken by SIT to develop four distinctive qualities in their students resonates with Ho Bee." He added that "the graduates of SIT are groomed to be 'thinking tinkerers'." He also said: "They are encouraged not to accept status quo but are driven to become the 'catalysts for transformation'. More importantly, they are often reminded to be "grounded in the community" to serve the general public."

He added: "At Ho Bee, we are also a believer of thinking out of the box and expanding the boundaries. We believe a good education helps open doors to many opportunities. It helps to nurture the next generation of leaders and professionals. We also hope that it will help impart to them the good values of giving back to the community."

Watch out for part 2 of this occasional series on SIT's future campus in the next issue of SITizen Bi-Annual



Artist's impression of the Ho Bee Auditorium at SIT's future campus in Punggol. In the interim, the auditorium at SIT@Dover has also been named the Ho Bee Auditorium.

## Ho Bee Auditorium in Punggol

A key landmark within SIT's future campus in Punggol, the Ho Bee Auditorium will be sited in a standalone noteworthy building by the waterfront that enjoys unobstructed views of Serangoon Reservoir and Coney Island. Serving as the stage for graduation ceremonies, performing arts recitals, orientation gatherings and other once-in-a-lifetime events, the iconic 800-seat facility will mark the milestones of our students' journeys. It will also be the venue for key lectures and engagements with VIP guests and influential speakers and leaders.

The Ho Bee Auditorium will both facilitate and bear witness to the development of SIT students into all-rounded SITizens – the catalysts of transformation who will be keen and ready to contribute to their community and industry.

At the naming ceremony of the Ho Bee Auditorium held on 1 July 2019, Prof Tan Thiam Soon, then President, SIT, said SIT was "very grateful for, and honoured by the firm support from Ho Bee Land Limited – a home-grown Singaporean company with a global outlook, and a name that is associated with both quality and sustainability – the very same outcomes that we are also keen to

achieve". He also expressed SIT's "heartfelt appreciation" for Dr Chua's "philanthropic leadership in making possible this very first gift to support our future campus" and thanked him for "taking the lead to support SIT and our students at this point of our journey, as our young university leaps forward into its second decade".

## Chua Tian Poh Discovery Hub in Punggol

When completed, the Chua Tian Poh Discovery Hub on Punggol campus will be a place for SIT students to work on their projects and presentations, whether in teams or individually. It is envisaged to be an incubator to engage the students' imagination to discover new ideas, new ways of collaborating, and their own new capabilities, and also actively engages them as co-creators, planners, and managers in their academic and research project work. It will be located at Levels 3 and 5 of Block E2 in the East Zone of SIT's future Punggol Campus.

Prof Chua Kee Chaing, President, SIT, expressed appreciation for Dr Chua's support at the naming ceremony of the Chua Tian Poh Discovery Hub held on 26 January 2022: "On behalf of SIT, I wish to say just how grateful we are for his firm support and friendship all these years. We would also like to thank him for his vote of confidence in SIT's vision, and for taking the lead to support our future campus in Punggol – and SIT hopes to see many more donors who will join Dr Chua in shaping the future of our young university."

Artist's impression of the Chua Tian Poh Discovery Hub.



# Mr Bill Chang Succeeds Mr Ng Yat Chung as Chairman of SIT Board of Trustees

Appointment takes effect from 16 March 2022

## New Chairman, Mr Bill Chang

Singapore Institute of Technology (SIT) Chairman Mr Ng Yat Chung stepped down on 15 March 2022 as the Chairman of SIT's Board of Trustees after more than 12 years. The University welcomed Mr Bill Chang, Chief Executive Officer, Group Enterprise and Country Chief Officer Singapore of Singtel, who has succeeded Mr Ng as the new Chairman to its Board with effect from 16 March 2022.

Mr Chang was appointed as a member of the SIT Board of Trustees in September 2020. He joined Singtel in November 2005 and was appointed CEO, Group Enterprise in 2012, before assuming the role of Country Chief Officer Singapore in 2014. An alumnus of Singapore Polytechnic, he served on the Board of Governors from 2003 and as its Chairman from April 2012 to September 2020. He served on the Board of the Workforce Development Agency for 6 years until 2011. Mr Chang co-chaired the Future Jobs and Skills Subcommittee of the Committee on the Future Economy of Singapore. He is currently a Board member of the Urban Redevelopment Authority and a member of the Australian Institute of Company Directors' International Advisory Technology Governance and Innovations Panel.



As Chairman of the SIT Board of Trustees, Mr Chang will work closely with the management and stakeholders of the university to shape its mission, chart major directions, and guide significant initiatives to produce a strong and enduring impact for the university. The SIT Board of Trustees comprises 19 eminent business leaders, academics, entrepreneurs, and professionals from the public and private sectors.

Said Mr Chang: "I am honoured with this appointment as Chairman of SIT at an exciting time for the university. SIT's mission to groom young talent to be work-ready professionals and lifelong learners, who contribute to and impact both industry and our society resonates strongly with me. I would like to thank our current Chairman for his leadership and contributions to the development of SIT since its founding years. I look forward to working closely with our SIT leadership and Board to make SIT Singapore's premier University of Applied Learning, supporting industry innovation and industry transformation."

## Outgoing Chairman, Mr Ng Yat Chung

During his tenure as Chairman of SIT, Mr Ng oversaw SIT's inception as a publicly funded institute in 2009, as well as it being gazetted as Singapore's fifth autonomous university in 2014. Under his stewardship, SIT has expanded university education pathways for young Singaporeans and has grown its educational offerings and industry collaborations significantly.

Said Mr Ng: "It has been an honour to serve alongside the Trustees, the university staff and our polytechnics, overseas university and industry partners to build from scratch a university of applied learning. I am grateful for the indispensable support of our partners, the government and our donors throughout this journey. I am delighted that Bill will be taking over as Chairman of SIT, and I have every confidence that he will steer SIT to greater heights."

Minister for Education, Mr Chan Chun Sing expressed appreciation for Mr Ng's contributions: "Mr Ng Yat Chung helped to establish SIT as our first autonomous university of applied education, and it is now well

recognised for its strong linkages with industry. This has brought greater diversity to the education system for our students. Mr Ng also advocated for SIT to have its own consolidated campus within the Punggol Digital District to help SIT develop a strong identity, and facilitate collaboration and the exchange of ideas between faculty, staff, students and industries in the district. I would like to warmly welcome Mr Bill Chang as the new Chairman, and look forward to working with him as SIT embarks on its next phase of development."

Prof Chua Kee Chaing, President of SIT, thanked Mr Ng for building the foundation of SIT as the inaugural Chair of SIT's Board. "My warmest gratitude to Mr Ng Yat Chung for his leadership over the last 12 years. He has helped to establish many practices that have laid the path in making SIT Singapore's University of Applied Learning. His dynamic leadership has guided us through an exciting period of growth as a new university. We are also delighted to welcome Mr Bill Chang as our new Chairman, and we are confident that he will play a pivotal role in SIT's next phase of growth."

*This article first appeared in SIT's Digital Newsroom.*

I am honoured with this appointment as Chairman of SIT at an exciting time for the university. SIT's mission to groom young talent to be work-ready professionals and lifelong learners, who contribute to and impact both industry and our society resonates strongly with me.

**Mr Bill Chang**  
Chairman, SIT Board of Trustees,  
Singapore Institute of Technology



# A Sweet Appreciation for Prof Tan Thiam Soon

Close to 160 staff received their 'golden tickets' to attend the intimate affair in-person and express their heartfelt thanks to Prof Tan for dedicating nine years of service as SIT's President

## A Memorable Trip Down SIT Lane



Prof Chua Kee Chaing, President of SIT, paid tribute to Prof Tan Thiam Soon's many achievements during his tenure as president. Chief among those was Prof Tan's strategic push for SIT to be a university of applied learning. The strong industry partnerships forged are a testament of Prof Tan's dedication to SIT's mission of developing individuals who

innovate with industry and impact society.

Prof Chua also shared that Prof Tan, now SIT's Institute Professor, is a warm host, as well as a food and wine aficionado. Indeed, as evidenced during a special video montage, Prof Tan's smiles were the cheeriest when the holy trinity of good food, better company and excellent conversation were present. The video – with contributions from divisions across the university – was a poignant trip down memory lane, highlighting key events during his tenure as President from 2013 to 2021.

## A Measure of a Leader

Echoing Prof Chua's sentiments were testimonies from faculty and staff, all of whom described a leader who would not hesitate to get down in the trenches with them.

Ms Loi Su Min, Asst Director, Office of the Deputy President (Academic) & Provost, SIT, shared about some memorable quotes by Prof Tan that had touched her personally, as an average student who had graduated from a polytechnic during a time when opportunities were limited. "Prof Tan said, 'SIT can make a difference by taking in average students and equipping them with skills and knowledge to become professionals in their choice of career,'" she recounted.

"Prof Tan's words gave me hope that if my child puts in the effort to pursue his dreams and passion, there is a university that is ready for him when he is ready. So thank you Prof Tan, for giving your time to SIT, and the hope that you have inspired in the average person, and parents to the average children."

Ms Emily Woo, Lead Professional Officer, Professional Officers Division, shared how students from the Hospitality Business degree programme were in a state of uncertainty during the height of COVID-19. "Our students poured out their concerns, but Prof Tan patiently answered each question thoughtfully. That interaction showed me the care, commitment and consideration Prof Tan has not just for our students, but all the stakeholders involved," she said.

## Closing a Chapter, Not the Book

At the event, Prof Tan received a few mementos from staff and management. Mr Gerry Wee, Director, Estates, SIT, presented Prof Tan with a pencil sketch of our Punggol campus. The sketch was masterfully done by Ms Ong Hooi Ling, Asst Director, Estates-Campus Development, SIT.

*This article first appeared in SIT's In-SITE.*



## Ask Me Anything with Prof Tan



Prof Tan takes questions from the audience in an Ask Me Anything session, moderated by Mr Kelly Koh, Director, Admissions.

**Q: I have two questions. In the last 9 years or so, what was the one thing that gave you the greatest pleasure?**

**A:** In all honesty, it is seeing the people here who are committed to SIT's mission. They are willing to go through extraordinary lengths to achieve our objectives, even when operating under constraints. The people here have made all the difference.

**Q: What was your most memorable meal during your tenure as SIT's President?**

**A:** I had a Chinese New Year tradition where I'd invite my senior management team and their spouses to dinner. Many of those meals were highlights. It is not just about the food, but the company enjoying themselves too. I believe that when you have an environment where everyone can work together as a family, you come to know each other outside of work too.

**Q: What do you do in your free time?**

**A:** I love walking and I walk with my family a lot, especially to discover new good food and nature. I would often walk until I reach a place that looks interesting, then I would take a Grab back to my car. This is how I discover interesting food places from Tanglin Halt to Tampines.

One thing I am looking forward to is getting back to my professional work and providing solutions to technical problems. I enjoy knowing that my suggestions work for the engineers and the issue is resolved.

**Q: Would you describe yourself as a competitive person?**

**A:** Yes, I am competitive for my students. I am not concerned about the backgrounds of where the students came from. But when the 'product' goes out, I want companies to say they are as good as or better than what they can get from other places. On a personal level though, age has mellowed me.



New Degree Programmes  
for AY 2022/23

# SIT Launches Applied Artificial Intelligence and Digital Supply Chain Programmes

Commencing in September 2022, the two new BSc degrees aim to nurture specialised talents proficient in leading technological transformation

The Singapore Institute of Technology (SIT) is launching two new programmes for Academic Year 2022 – the Bachelor of Science with Honours in Applied Artificial Intelligence (AAI) and the Bachelor of Science with Honours in Digital Supply Chain (DSC).

Both programmes are three-year direct honours programmes with an initial intake of 40 students each.

The AAI programme aims to provide a strong talent pipeline of AI engineers proficient in

developing, deploying and maintaining AI systems across multiple industry sectors through core training in software engineering, machine learning and professional skills. As part of SIT's unique applied learning pedagogy, students will also be exposed to industry projects staged across various domains, such as fintech, engineering and healthcare.

By intentionally building real-world projects into the programme curriculum, students are trained to be agile, and to be able to

implement AI within a wide range of industry settings. The AAI programme is welcomed by partners such as Amazon Web Services, and has received endorsement from the national AI programme, AI Singapore.

The DSC programme, meanwhile, focuses on emerging technologies in the digital transformation of the logistics and supply chain sector. According to a report by the Ministry of Manpower in October 2020, higher value-job roles such as Logistics System Engineer, Supply

Chain Analyst, and Automation Specialist are increasingly in demand to meet the logistics sector's evolving operating models and business needs.

The interdisciplinary programme aims to equip students with knowledge and skills in domains that would support the transformation of the supply chain and logistics sector. It places a strong emphasis on the development of capabilities and the adoption of emerging technologies required in industry digital transformation efforts.

## Notable Industry Partnerships Established in Support of New Programme

With the launch of the DSC programme, SIT has also established partnerships with key industry partners Singapore Logistics Association (SLA), YCH Group (YCH) and Y3 Technologies

(Y3) through two separate Memoranda of Understanding (MOU). Aimed at enhancing the programme's unique offerings, the partnerships will allow the parties to co-develop and co-deliver the content of the curriculum.

Students will gain work attachment, capstone project collaboration and networking opportunities with SLA's pool of more than 600 members, leading regional supply chain management provider YCH, and premier supply chain technology solutions provider Y3 Technologies. SIT students and faculty members can also look forward to participating in innovative applied research to deliver integrated solutions for the logistics community. In addition, SIT and its industry partners will co-create training programmes to support workplace learning and upskilling opportunities through customised training programmes.

## Re-designed Bachelor of Engineering with Honours in Naval Architecture and Marine Engineering

Additionally, the new Academic Year will see the joint Marine Engineering, Naval Architecture and Offshore Engineering programmes offered by SIT and Newcastle University re-designed as a three-year Bachelor of Engineering with Honours in Naval Architecture and Marine Engineering (NAME) programme. The programme aims at equipping students with the expertise and skills to drive maritime digitalisation, decarbonisation, offshore renewables, and sustainable design and engineering of the global marine and offshore industry. Three corresponding specialisations in naval architecture, marine engineering and offshore engineering will be offered in the upper years of the degree programme.

*This article first appeared in SIT's Digital Newsroom.*



Mr Oh Bee Lock, CEO, SLA (left), and Prof John Thong, Deputy President (Academic) & Provost, SIT (right)



From left: Ms Annie Lam, Head, Group Human Resources, YCH Group; Prof John Thong, Deputy President (Academic) & Provost, SIT; and Mr Philip Low, COO, Y3 Technologies.

## New Applied Computing with a Specialisation in Fintech Degree Programme to Develop Talents for Financial Services Sector

3-year direct honours programme by SIT, launched in partnership with IMDA and MAS, will equip graduates with both technical skills and financial domain knowledge

The **Singapore Institute of Technology (SIT)**, in partnership with **Infocomm Media Development Authority (IMDA)** and **Monetary Authority of Singapore (MAS)**, is launching a new **Bachelor of Science with Honours in Applied Computing with a specialisation in Fintech** degree programme in the upcoming Academic Year (AY) 2022/23. Through this three-year programme, graduates will be equipped with both technical skills and financial domain knowledge, to position them for careers in high growth technology areas in the financial sector.

The employment outlook for the financial sector remains strong, especially for technology job roles such as software engineers, cybersecurity engineers, and data analysts. The technology workforce in Singapore's financial sector is estimated to have grown over 45% since 2015 when MAS partnered the industry to embark on the roadmap to become a Smart Financial Centre.

The growth momentum will continue as the sector continues to digitalise and innovate.

Building on SIT's expertise in applied learning, the programme will be a **SkillsFuture Work-Study Degree (WSDeg)**, which has been an effective pathway for students, including Polytechnic graduates, to gain the skills and experience needed to capture high-value jobs. Students will be trained in software engineering, project management, as well as growth areas such as machine learning and blockchain, and will be equipped with financial domain knowledge such as financial products and investment management.

The programme has received endorsements from industry partners, including AIA Singapore, DBS Bank, J.P. Morgan, and Standard Chartered Bank.

A strategic alliance between AIA Singapore and SIT will be

established to build local core talents in the finance sector, with AIA committed to supporting close to 50 WSDeg learners over three years. Attractive stipends will be offered to learners, and a sign-on bonus will be awarded to graduates who continue their work with AIA.

SIT will offer 40 places for this programme in its inaugural year. Admission to the programme will be opened to admitted SIT students of the Information and Communications Technology (Information Security) and Information and Communications Technology (Software Engineering) programmes in AY2022/23 on a selective basis. From AY 2023/24, interested applicants will be able to apply during the admission exercise. Interested applicants may contact SIT at [ADM@singaporetech.edu.sg](mailto:ADM@singaporetech.edu.sg).

*This article first appeared in SIT's Digital Newsroom.*

## LTA and SIT Establish Centre for Infrastructure and Tunnel Engineering

Partnership seeks to foster greater collaboration in research & development, as well as educational and training programmes in highly-specialised field

The Land Transport Authority (LTA) and the Singapore Institute of Technology (SIT) signed a Memorandum of Understanding (MOU) on 20 December 2021 to establish a Centre for Infrastructure and Tunnel Engineering (CITE).

The partnership between LTA and SIT seeks to foster greater collaboration in research & development, as well as educational and training programmes in this highly-specialised field of infrastructure and tunnelling engineering. As cities around the world become more urbanised, many mega-infrastructure projects for land transport, waste management and other utility services such as transmission cable tunnels for power services are increasingly being built underground. In land-scarce Singapore, expertise for tunnel engineering and infrastructural development will continue to be in demand.

The CITE will serve as a platform for the civil engineering community to exchange and deepen their knowledge and skill sets in this field. The Centre will also conduct and facilitate applied research to augment safety standards in the design, construction, operation and maintenance of tunnels, and other civil engineering infrastructure. This will be beneficial for major underground projects in the next few decades, which include the Cross Island Line, North-South Corridor and Deep Tunnel Sewerage Systems. To augment manpower capabilities, the CITE will develop and offer customised training courses to reskill and upskill local professionals in infrastructure and tunnel engineering.



From left: Er Chua Chong Kheng, Deputy Chief Executive, Infrastructure & Development, LTA; Mr Ng Lang, Chief Executive, LTA; Prof Chua Kee Chaing, then President-designate, SIT; Prof Tan Thiam Soon, then President, SIT.

Prof Tan Thiam Soon, then President, SIT, commented: "As a Technology Innovation Centre at SIT, the CITE will leverage SIT's strengths in applied learning and industry collaboration to promote innovation and groom talent. We envision the Centre to be at the forefront of cutting-edge applied research and training in Singapore, readying future graduates and workforce to meet the challenges of ever-evolving infrastructure and tunnel developments. SIT is pleased to collaborate with LTA to continue to enhance Singapore's capabilities in this sector."

Said LTA's Chief Executive Mr Ng Lang: "Our rail lines and road projects are going deeper underground to allow for better use of above ground spaces and to preserve our natural environment. This requires specialised domain knowledge, and the CITE can help build a steady pool of tunnel engineers with a mix of civil engineering and geotechnical knowledge to support our efforts."

*This article first appeared in SIT's Digital Newsroom.*

### Building a Talent Pipeline for Infrastructure and Tunnel Engineering

To uplift industry standards, the CITE has collaborated with Singapore's Professional Engineers Board (PEB) to develop a customised Certification Course in Tunnel Engineering. The course aims to upskill professionals specialising in bored and mined tunnelling projects and supports Professional Engineers (Civil) in attaining accreditation as Specialist Professional Engineer in Tunnel Engineering.

A pilot run of the course in March 2021 attracted 30 industry professionals who would complete the programme in the first quarter of 2022. Interested applicants can apply for subsequent runs of the course through the SITLEARN website.



# SIT and Siemens Announce New Degree Specialisation in Engineering at Opening of Applied Learning Conference 2022

The new degree specialisation in the Robotics Systems Programme will enable companies to build Industry 4.0 capabilities



The signing ceremony between SIT and Siemens was attended by key representatives (from left): Mr Sascha Maennl, Senior Director, Factory Automation Sales Asia-Pacific, Siemens; Dr Thai Lai Pham, President & CEO, Siemens Pte Ltd; Prof Chua Kee Chaing, President, SIT; and Mr Bernard Nee, Vice President (Industry & Community Group), SIT.

The Singapore Institute of Technology (SIT) and Siemens Pte Ltd have signed a Memorandum of Understanding (MOU) to develop a new degree specialisation in the Robotics Systems programme. The degree specialisation will deepen graduates' knowledge and skills in Industry 4.0 technologies for the advanced manufacturing sector, such as robotics and artificial intelligence (AI). Demand for these skill sets is growing, due to the rapid rise in robotics, machine learning and the Internet of Things.

The partnership was announced at the opening of the third Applied Learning Conference (ALC), held

from 20 January to 21 January 2022. Themed 'Embracing Change in an Era of Disruption', the virtual conference explored the role of higher education in connecting graduate competencies to workforce needs and strengthening interdisciplinary learning to cope with future uncertainties. Topics included competency-based education, interdisciplinary learning, applied learning pedagogies, workplace learning, and the lessons and impact of the COVID-19 pandemic on education.

The ALC is organised by SIT as one of its key platforms to discuss and share best practices in academia-

industry collaboration in applied learning and talent development. Ms Gan Siow Huang, Minister of State, Ministry of Education, was the Guest-of-Honour at this year's ALC.

Commencing in Academic Year (AY) 2023/24, the new degree specialisation will equip students with work-relevant skills, such as robotics systems development, systems engineering, AI, and project management. SIT and Siemens will work together to onboard ecosystem partners, as well as co-develop the curriculum, recruitment strategies and assessment frameworks.

This partnership will also create a new pathway to allow students to jumpstart their careers while concurrently pursuing a university degree. Students will alternate between spending one to two trimesters in SIT and at the workplace under a 'term-in, term-out' model, and acquire work-related skills that augment their classroom learning. SIT and Siemens will also jointly explore developing workplace learning initiatives and rapid prototyping projects for like-minded companies in the advanced manufacturing ecosystem.

Prof Chua Kee Chaing, President, SIT, said, "As Singapore's university of applied learning, we place both industry and the individuals at the heart of SIT. We are constantly innovating in the delivery of university education, developing new pathways that blur the boundaries between study and work. We are very happy to be partnering Siemens in the development of this new degree specialisation. With Siemens' expertise in developing advanced engineering technologies and SIT's strengths in applied learning and research, I am confident that the degree specialisation will further enhance the industry relevance of our education and the career-readiness of our graduates."

Dr Thai Lai Pham, President and CEO, Siemens Pte Ltd, said, "Siemens believes that providing innovative and future-oriented education and training opportunities is key to the sustainability of our company. So we proactively address skill and qualification requirements, and work with universities around the world on this topic." He added, "I am pleased to partner with SIT in Singapore to develop a programme based on Germany's successful dual education model. I am confident that this model will help to train relevant talents with both theoretical and practical expertise."

*This article first appeared in SIT's Digital Newsroom.*

## SIT's Third Applied Learning Conference

ALC 2022 covered 20 parallel sessions and featured talks, presentations, and workshops by local and international speakers from various institutes of higher learning and organisations as well as industry. Approximately 350 local and overseas delegates, including C-suite business executives, academia, and industry partners attended the conference.

Dr Charla Long, President, Competency-Based Education Network (C-BEN), delivered the first plenary address on 'The Key Tenets of a Quality Competency-Based Education Programme'. The talk emphasised the hallmark assessment practices found in solid competency-based education offerings.

Other notable speakers at the event included:

- Professor Sir Chris Husbands, Vice-Chancellor, Sheffield Hallam University, who shared how higher education needs to respond to the demands placed on graduates in a knowledge economy;
- Mr Neo Kian Hong, Group Chief Executive, SMRT Corporation, who talked about how workplace learning can be an effective model in training current employees while maintaining high operational performance;
- Ms Tan Hui Boon, Vice President, Training Academy, SIA Engineering Company Ltd, who spoke on the workforce reskilling and upskilling at SIA which aims to capitalise on the future recovery of the aviation industry; and
- Professor Stephen Billett, Griffith University, who elaborated on developing workplace competency through practice based curriculum and pedagogy.



# Research for the Real World: Revolutionising Food Sustainability

## How SIT is using research to tackle national concerns in Singapore such as food sustainability

A raspberry-flavoured molecule equivalent to 100 tons of raspberries; turning coffee into alcohol; and lab-grown seafood – researchers in Singapore are crossing new frontiers in food tech. These breakthroughs are spelling out a promising future for food sustainability.

One university in Singapore is focused on research that contributes to this future. The Singapore Institute of Technology (SIT) is dedicated to applied learning, where they combine academia with real world industry partnerships to effect change.

Assoc Prof Susanna Leong, Vice President (Applied Research) at SIT, shares how the university uses research to make a difference in the food sustainability space, and more.

## Advancing Food Sustainability with Applied Research

Singapore's '30 by 30' goal aims to improve the country's food security by producing 30 per cent of its nutritional needs locally and sustainably by 2030. SIT is contributing to this mission with its research in food sustainability.

"The goal of this research programme is to understand how we can sustainably produce plant-based food alternatives that can be both nutritious and affordable," says Assoc Prof Leong.

SIT is embarking on a four-year joint research programme with agritech firm Agrocorp as part of this programme. The two had collaborated and created a plant-based cheese, HerbYvore, earlier this year. This new partnership will see them find ways to maximise the quality, yield, and functionality of plant-based proteins, as well as improve the extraction process of such proteins.

"By improving yields and reducing water and chemical requirements, we are aiming to produce a more cost effective, sustainable and clean label ingredient that will allow dairy and meat replacements to compete more closely with their

contemporaries," Mr Vishal Vijay, Director of Strategic Investments, Agrocorp International, said. "We're thankful for how willing SIT has been to work with us on this endeavour and are delighted to partner them and their talented researchers, and leverage their state-of-the-art facilities. We're also proud to contribute to Singapore's '30 by 30' efforts with this collaboration," he added.

The programme hopes to uncover new methods of extraction that waste less water, use less chemicals, and upcycle agricultural waste. Greener methods of extraction can bring down processing and ingredient costs, reduce the amount of ingredients used to make food products, and enhance food quality.

## Bridging the Gap between Academia and Industry

SIT works closely with industries to tackle Singapore's urgent needs through research beyond food sustainability. They focus on **four other areas** – energy resilience, sustainable infrastructure and maintenance, community health transformation and sustainable maritime engineering. These research programmes are also supported by technology such as AR, VR, 5G, and AI to future proof the research findings.

"The outcomes of these programmes are expected to help level up industry's capabilities, enhance their competitiveness and boost Singapore's status as a smart, sustainable and resilient nation," says Assoc Prof Leong.

She adds that partnering industry in the university's applied research pursuits keeps academic staff abreast with industry trends and knowhow. This is critical to train future-ready talent.

## A Platform for Innovation

Companies can also work with SIT to develop marketable products and services by co-developing prototypes and workable products through projects. For example, a company with a new product idea can engage the Design Factory@SIT to identify problems in the product and come up with solutions. Once they have a viable solution, they can engage the Rapid Product Innovation & Development (RaPID) Centre to develop the first version of their product.

Students also benefit from these partnerships when they participate in these projects and receive mentoring by industry experts. Additionally, SIT works with companies to set up labs that mirror a real manufacturing environment. These labs expose students to real world manufacturing processes and give them the chance to develop problem-solving skills needed in the working world.

Industry-academia applied research partnerships are critical to shorten the time needed between knowledge creation and application. SIT hopes to champion more of such partnerships to bring real benefits to students, staff and industry.

*This article first appeared in GovInsider.*



Product image courtesy of Agrocorp International.

# SIT, Enterprise SG and JTC Jointly Launch FoodPlant to Advance Food Innovation

The \$13 million facility will bolster Singapore's food innovation scene through Small-Batch Production and R&D



The team at FoodPlant include (from left): Ms Serene Teo (Technical Specialist), Ms Fiona Lee (Deputy Head), Mr Ong Wai Peng (Project Executive), Dr Lim Bee Gim (CEO), Mr Caleb Neo (Intern), Ms Angela Goh (Project Executive), Mr Vincent Koh (Technical Officer) and Mr Lim Eu Chin (Senior Technical Specialist).

On 22 April 2022, the Singapore Institute of Technology (SIT), Enterprise Singapore (Enterprise SG) and JTC jointly launched FoodPlant, Singapore's first shared facility for small-batch food production that is licensed by the Singapore Food Agency (SFA). Located in JTC Food Hub @ Senoko, the facility's opening was officiated by Mr Heng Swee Keat, Deputy Prime Minister and Coordinating Minister for Economic Policies.

FoodPlant provides affordable access to a wide range of pilot scale equipment, research and development (R&D) consultancy services, and upskilling courses. These services aim to equip local companies with enhanced capabilities to develop new, innovative food products in response to evolving consumer preferences. FoodPlant is expected to benefit at least 200 food manufacturers and support the development of at least 400 new food products by 2026.

The equipment aid companies to expand their product portfolios and penetrate new consumer segments. For example, companies may use the Twin-Screw Extruder to produce plant-based meat analogues. Additionally, companies looking to expand abroad can make use of the Retort or the Spray Dryer machines to extend product shelf life or change product formats to meet various requirements.



Companies will have access to specialised equipment such as the Retort machine (left) or the Spray Dryer (right) at FoodPlant.

## At the FoodPlant

The 1,107 square metre facility boasts 12 rooms with specialised food production equipment, including:

- a Twin-Screw Extruder which employs a High Moisture Extrusion Technology (HMET) to texturise plant-based protein into viable meat alternatives;
- a Pulsed Electric Field (PEF) system for microbial inactivation, improved extraction, drying acceleration, amongst other advantages;
- a Retort machine that provides commercial sterilisation of food to extend shelf life and storage under ambient condition by packing and heating food within flexible retort pouches or glass jars; and
- a Spray Dryer with an integrated fluidised bed to enable creation of products such as milk powder, instant beverages and nutrient-dense food to address elderly needs.

Food products manufactured in the facility can be sold commercially as they are produced in an SFA licenced facility. Companies will be able to trial new products in small batches and sell them to consumers to conduct market testing. This will allow them to take in feedback at an early stage in order to sharpen their product development process.

FoodPlant will also provide skills training for food technologists to strengthen the industry's adoption of advanced food processing technologies. The industry can look forward to specialised upskilling courses such as "High Moisture Extrusion Technology (HMET) for "Meat Analogues", "Food and Feed Extrusion Technology" and "Retort Processing". The courses are led by

local and foreign experts such as FoodPlant's Chief Executive Officer Dr Lim Bee Gim, who is also an Associate Professor at SIT. Courses can also be tailored to companies' specific needs.

To boost collaborations among local food companies as well as cross-border partnerships, FoodPlant and SIT signed a Memorandum of Understanding with Foodbowl New Zealand, a government-supported, pilot-scale food processing facility located in South Auckland on 20 April 2022. The parties will work with each other to develop capabilities in food innovation and manufacturing across shared facilities through knowledge sharing and extension of industry networks.

Ahead of the launch, FoodPlant had secured 17 membership sign-ups by companies and individuals who are keen to embark on or further their innovation journey. These companies include Agrocrop International, Dahmeh Pte Ltd and SGProtein. Companies can access FoodPlant's facilities and consultancy services. Interested parties can visit <https://www.foodplant.com.sg/> to find out more.



Guest-of-Honour Mr Heng Swee Keat (second from right), officiating the opening of FoodPlant with (from left) Dr Lim Bee Gim (CEO, FoodPlant), Mr Bill Chang (Chairman, SIT Board of Trustees, and CEO, Group Enterprise and Country Chief Officer Singapore, Singtel), and Prof Chua Kee Chaing (President, SIT).



## SIT and ISACA Singapore Chapter Sign MOU to Advance Student Development in Technology

Collaboration spanning areas such as academic awards, student development, talks and workshops will expand opportunities for real-world experience for SIT students

FoodPlant is a key component in SIT's sustainable food innovation programme which aims to help local companies grow and innovate through food technology. It is an enabling platform for companies to perform small-batch testing and production of innovative food products developed through R&D collaborations with SIT, other food R&D players or among themselves. Its affordable pay-per-use model lowers the barriers to market entry such as high upfront costs in setting up a manufacturing plant or being charged for minimum order quantities when accessing commercial food processing equipment. Through FoodPlant, SIT hopes to contribute to Singapore's transformation as a food innovation hub.

**Prof Chua Kee Chaing**  
President, SIT

Many of our companies are developing new products like plant-based meat alternatives or cell-cultured proteins through FoodInnovate to meet growing consumer demand. FoodPlant provides these companies access to advanced food processing equipment, technologies and expertise, which in turn enables faster innovation and time to market.

**Mr Jeffrey Siow,**  
Managing Director & Chief Operating Officer,  
Enterprise SG

The opening of FoodPlant is a significant milestone in strengthening Singapore's food manufacturing ecosystem. FoodPlant will not only plug the gaps that food innovators face today but also provide a platform for partnerships and capability development. I look forward to seeing more collaborations amongst food innovators and exciting new products launched.

**Mr Alvin Tan,**  
Industry Cluster Group,  
Assistant Chief Executive Officer,  
JTC

The Singapore Institute of Technology (SIT) and the ISACA Singapore Chapter have signed a Memorandum of Understanding (MOU) to collaborate on activities spanning areas such as academic awards, student development, as well as talks and workshops.

This paves the way for students of SIT to expand their opportunities for real-world experience, whether through ideas for Capstone collaborations or assisting in seminars and conferences organised by ISACA. As a professional association focused on IT governance, risk, audit and cybersecurity, ISACA's network of professionals can share their considerable knowledge and insights on information technology, information security and innovation, to support SIT's efforts in preparing graduates for an increasingly digital world.

Prof John Thong, Deputy President (Academic) & Provost, SIT said, "The

role of the infocomm technology professional is evolving constantly and there is a strong need for local talent to be equipped with the necessary knowledge and skillsets. We are appreciative of the contribution from ISACA that will support SIT to produce work-ready graduates. Our students will benefit from the early industry exposure and applied learning opportunity that ISACA provides."

Mr Peter Gwee, local chair of Young Leaders in Tech (part of ISACA One In Tech Foundation initiatives) and director of academic outreach at the ISACA Singapore Chapter, said, "ISACA Singapore has industry professionals who promote the 'positive' aspects of technology and the importance of adopting good and effective governance in the digital and cyber domains; thereby attracting the attention of government leaders, stimulating new ideas for industry and cited by academic authors' profiles in education for lifelong learning."

President of the ISACA Singapore Chapter, Mr Steven Sim, added, "In this era of accelerated Industry 4.0, good domain expertise is crucial to achieve resilience by design in every industry. ISACA Singapore with its large membership base of experienced cyber leaders is glad to partner with SIT in skilling up the future cyber leaders of Singapore."

According to Dr. Chris Dimitriadis, Chief Global Strategy Officer at ISACA Global, "Skills gaps continue to persist in technology and cybersecurity roles. Through relationships like these, we better equip students, thereby better equipping organisations with the talent and knowledge they need to power innovation through trusted and secure technology."

*This article first appeared in SIT's Digital Newsroom.*

*This article first appeared in SIT's Digital Newsroom.*

# SIT and TCOMS Form Strategic Partnership for Applied Research and to Jointly Nurture Engineering Talent

The MOU will strengthen Singapore's R&D efforts in sustainable maritime engineering and grow a future talent pool

The Singapore Institute of Technology (SIT) and the Technology Centre for Offshore and Marine, Singapore (TCOMS) have signed a Memorandum of Understanding on 24 March 2022 to strengthen Research & Development (R&D) collaboration, and grow the talent pool for Singapore's Maritime, Marine & Offshore Engineering, as well as other ocean sectors.

This partnership will involve staff exchanges between the two partners to leverage the talent and expertise in both organisations, in areas such as naval architecture, fluid-structure interaction, as well as maritime autonomy and control. TCOMS will host SIT students on their internships. SIT will also be able to access TCOMS' R&D facilities, such as its ocean basin facility, for applied research and educational purposes. In addition, TCOMS and SIT will collaborate in applied research projects and events.



Prof Chua Kee Chaing (second from left), with Prof Chan Eng Soon (second from right) sharing on TCOMS' capabilities, using the model of the TCOMS Ocean Basin.

Said Prof Chua Kee Chaing, President, SIT: "As a university of applied learning, SIT is committed to nurturing industry-ready talent and innovate with industry. Sustainable maritime engineering is a key area of focus

for us, and we look forward to working with industry to tackle new challenges including maritime decarbonisation, digitalisation as well as sustainable ship design. We are pleased to collaborate with TCOMS to strengthen Singapore's R&D efforts in sustainable maritime engineering and to build a pipeline of talent for the industry."

"TCOMS is proud to partner SIT to nurture Singapore's future engineering talent. As a national R&D centre dedicated to the Maritime, Marine & Offshore Engineering and other Ocean sectors, TCOMS seeks to offer an enriching opportunity to our researchers, academia and students to co-innovate with the industry and solve real world challenges," said Prof Chan Eng Soon, CEO, TCOMS.

*This article first appeared in SIT's Digital Newsroom.*



Prof Chua Kee Chaing (left), President, SIT, and Prof Chan Eng Soon (right), CEO, TCOMS, at the MOU signing.



The MOU was signed by Mr Johnny Kho (left), President, AiSP, and Assoc Prof Ivan Lee (right), Vice President (Innovation), SIT, and witnessed by Dr Janil Puthuchear (centre), Senior Minister of State, Ministry of Communications and Information & Ministry of Health. Photo courtesy of AiSP.

## AiSP and SIT Collaborate to Enhance Singapore's Cybersecurity Ecosystem

Both organisations will conduct professional training courses and share best practices in the cybersecurity community

A Memorandum of Understanding (MOU) was inked by Association of Information Security Professionals (AiSP) and the Singapore Institute of Technology (SIT) on 11 May 2022.

The collaboration between AiSP and SIT aims to create a vibrant and dynamic international information and cybersecurity ecosystem in Singapore. Both parties will jointly conduct training, share best practices, and participate in events and activities.

To enhance the cybersecurity ecosystem, AiSP and SIT will conduct training courses to raise the professional competency of

information security personnel in Singapore. Best practices will also be shared to encourage knowledge-sharing within the cybersecurity community. A communication and collaborative framework between both parties will be established and implemented as part of the MOU agreement.

In addition, SIT students from the **Information and Communications Technology (Information Security)** degree programme will also stand to benefit from various initiatives and events where they can contribute to the cybersecurity ecosystem. These initiatives include the AiSP

IoT Innovation Day, AiSP's Ladies in Cyber Mentoring programme, Student Volunteer Recognition Programme, Bug Bounties, as well as involvement in special interest groups.

The signing ceremony was witnessed by Guest-of-Honour Dr Janil Puthuchear, Senior Minister of State, Ministry of Communications and Information & Ministry of Health, and held at the inaugural AiSP IoT Innovation Day 2022 at Suntec Convention Centre.

*This article first appeared in SIT's Digital Newsroom.*

# SIT and AMILI in Partnership to Advance Asian Gut Health R&D

First-of-its-kind made-for-Asia sustainable R&D to develop kale stems as prebiotics; partnership to deepen symbiotic industry-academia collaborations in applied research and talent upskilling



Key representatives representing SIT and AMILI at the MOU signing ceremony (from left): Dr Jeremy Lim, CEO & Co-Founder, AMILI; Ms Toh Kai Yee, Head of Lab and Research, AMILI; Assoc Prof Susanna Leong, Vice President (Applied Research), SIT; and Prof Chua Kee Chaing, President, SIT.

The Singapore Institute of Technology (SIT), Singapore's University of Applied Learning, and AMILI Pte Ltd, Southeast Asia's first precision gut microbiome company, have formalised a three-year partnership on 3 June 2022 to accelerate innovations in human gut microbiome. SIT and AMILI will jointly embark on a series of research and development (R&D) programmes, staff upskilling initiatives, and work attachment opportunities for SIT students.

## Commercialising Kale Stems as Prebiotics through First-of-its-Kind R&D Programme

As the human gut microbiome research continues to be an important field to advance human health, researchers from SIT and AMILI have embarked on a research programme to exploit the benefits of leftover farmed vegetables for gut health improvement. The first-of-its-kind applied research programme utilises food waste

valorisation through drying and milling methodologies to optimise kale stems as prebiotics that will enhance the growth of probiotics, with a focus on the Asian population. Kale stems, in its powder form, are found to be strong catalysts for the growth of Bifidobacterium and Lactobacillus, both of which are essential intestinal bacteria that aid in the maintenance of a healthy gut system.

One of SIT's key applied research focus is sustainable food innovation. We aim to contribute to the growing functional foods and nutraceutical market through sustainable R&D methodologies such as food waste valorisation. We look forward to working with AMILI to develop products that meets the needs of Asian consumers.

Assoc Prof Susanna Leong,  
Vice President (Applied Research), SIT

We are honoured to partner SIT, a university that includes food science and innovation as one of their key areas of focus. As our tagline goes, 'Good health starts with gut health', and Asia has many traditional foods and ingredients that are only just being scientifically assessed to demonstrate their health benefits. We believe this partnership will be a key platform to achieve this.

Dr Jeremy Lim,  
CEO & Co-Founder, AMILI

SIT will further develop kale stems as a prebiotic to be incorporated into AMILI's next generation of gut health supplements. Coupled with AMILI's findings from its fast-growing multi-ethnic microbiome database, the new commercial product will present a competitive edge to existing Western formulations. AMILI's keen focus in Asian microbiome research and innovation enables the company to develop products and services that are based on comprehensive studies of the gut microbiome and dietary patterns of people living in Asia.

The joint R&D in optimising kale stems as prebiotics is a continuation of SIT's work in food waste valorisation with home-grown agri-tech company Sustenir, which produces healthy vegetables such as kale, lettuce and spinach. Apart from the optimisation of kale stems as prebiotics, SIT and AMILI will also embark on other applied research initiatives that will contribute to leveraging technology platforms to accelerate the expansion of AMILI's gut health studies and suite of commercial offerings.

## Industry Upskilling and Strengthening Talent Pipeline through Skills-Based Learning

As part of the collaboration, SIT and AMILI will employ a skills-based approach in a symbiotic staff exchange programme that aims to strengthen industry and academia upskilling. SIT academic staff, comprising faculty and Professional Officers, will be closely engaged in AMILI's product development efforts, while AMILI's staff will benefit from SIT's applied research expertise and laboratory contributions. Both SIT and AMILI employees will also co-develop and incorporate topics on gut microbiome in future coursework.

There will also be work attachment opportunities for SIT students across multiple disciplines, including Food Technology, Pharmaceutical Engineering, and Dietetics and Nutrition. Students will gain real-world exposure through practical sessions in applied research and commercial product development.

This article first appeared in SIT's Digital Newsroom.

## Words Have Meanings

**Microbiome:** the community of microorganisms (such as bacteria and viruses) that exists in a particular environment. The term is often used to describe the microorganisms that live in or on a particular part of the human body, such as the skin or gastrointestinal tract. The collaboration between SIT and AMILI focuses on gut microbiome.

**Food waste valorisation:** a process of converting leftover food or by-products into higher value products that contribute back to the food supply chain.

**Prebiotics:** types of fibre that feed the good bacteria found in the digestive system.

**Probiotics:** good bacteria found in certain foods or supplements that are beneficial for the digestive system and enable crucial bodily functions.

# Advancing Ageing Research in Singapore

How can older persons maintain better mental and physical function? The answer is through exercise and housework, according to recent studies by Assoc Prof Wee Shiou Liang

Over the last decade, Assoc Prof Wee Shiou Liang has been working with community partners to develop strategies and evaluate interventions to extend the health span of older persons, and better enable ageing in place. An example is working with health technology company, PulseSync to study the effectiveness of the Gym Tonic (GT) pneumatic machine resistance training programme for older persons.

## Impact of Gym Tonic: Helping Older Persons Maintain Strength and Function

GT was initiated by the Lien Foundation in 2014, and PulseSync undertook the task of operationalising GT at community clubs and senior care centres. A research team led by Assoc Prof Wee evaluated the impact of GT using a pragmatic, randomised-controlled trial design from 2018 to 2019.

Findings from the research were published in the journal, *European Review of Aging and Physical Activity*. It found that seniors who participated in the exercise

programme twice a week, over the course of three months, showed improved muscle strength and gait speed – demonstrating the effectiveness of the GT programme.

Assoc Prof Wee said, "From my other community-based research, multi-modal (physical and cognitive) functional training and activities can complement GT to achieve better functional performance for older adults in power, balance, endurance, and mental tasks relevant to maintaining an independent lifestyle.

## Breakthroughs on Ageing Research

Research on ageing, health and social services, and care integration must be multi- and trans-disciplinary with quick real-world industry and community applications and translations. Assoc Prof Wee feels that SIT's established networks with industry and community facilitate the sharing of resources and multi-level collaborations required to advance and translate ageing research.

"Not only does SIT HSS work closely with allied health, nursing, social sciences, we also collaborate with other SIT academic clusters. We place strong emphasis on applied learning and research, making us well-placed to connect resources and advance research for healthy ageing," he said. In addition, he believes such collaborations are key to accelerating research translation.

Among other research areas that Assoc Prof Wee looks into is how housework is associated with higher cognitive function, specifically in attention and memory, among older adults. This research was published in November 2021 in *BMJ Open*.

## Singapore's Approach to Ageing and Long-term Care

These research areas support Singapore's focus with regards to ageing: extending health span; ageing in place; and advancing care model - relevant to people living with chronic health problems that affect their ability to perform everyday activities. Long term care in Singapore is currently

undergoing rapid transformation in capacity, capability, and care model developments.

The World Health Organisation now defines healthy ageing as 'a process of developing and maintaining the functional ability that enables well-being in older age'. This approach points towards optimising capacity together with cultivating an empowering environment for ageing in place. Therefore, nursing homes in Singapore need to evolve from functioning primarily as medical institutions to residential homes.

## Caring for Nursing Home Residents

A large proportion of nursing home residents are persons with dementia. Assoc Prof Wee emphasised that we can view dementia as a shift in the way an individual experiences the environment. "Functional decline just means one's life is not what it used to be, so one must gradually accept a 'new normal'," he said.

*This article first appeared in SIT's Digital Newsroom.*



Assoc Prof Wee has been working with community partners to develop strategies and evaluate interventions to extend the health span of older persons and better enable ageing in place over the last decade.

# Bespoke Hip Protector Enhances Safety of Fall-prone Seniors

Developed by SIT and G4 Pte Ltd, the lightweight and breathable EXO+ hip protector offers protection for Ren Ci Hospital's nursing home residents

SIT and G4 Pte Ltd have collaborated with Ren Ci Hospital to develop a customised hip protector that offers good protection and comfort for fall-prone seniors. Ren Ci Hospital is the first facility in the community care sector to trial the EXO+, a lightweight hip protector made with breathable material for Singapore's hot and humid climate. The patented hip protector features a foam pad made of sandwiched layers of impact-absorbing foam and elastomers to cushion the wearer's hip in the event of a fall.



Assoc Prof Soh Chew Beng (right), Programme Leader, Sustainable Infrastructure Engineering (Building Services), SIT and Mr Samuel Lim, former Research Engineer at SIT, displaying the hip protector belts in the characterisation lab at SIT@Dover, where they performed material characterisation.

Following positive feedback from residents, Ren Ci Hospital will be deploying the hip protector at both its nursing homes to selected residents with fall-risk potential due to gait or lower limb weakness.

"We expect hip fractures among seniors to be on the rise as the population ages. While there are existing hip protectors in the market, most are not easy to put on. They also trap heat when worn for long hours and cause discomfort for the elderly. Compliance becomes a real issue. In comparison, EXO+ is easy to wear, more breathable, and suitable for our local climate - all the benefits that aid initial acceptance by our elderly residents. This removes problems with compliance, so our seniors, especially those with osteoporosis, can avoid potentially life-threatening hip fractures," said Ms Tan Tzuu Ling, Assistant Director, Nursing at Ren Ci Hospital.

The team from SIT and G4 (which specialises in protective gear for defence and healthcare) drew inspiration from the exoskeleton structure of crustaceans for the design of the hip pads. The EXO+ uses flexible elastomers made of a stretchable material that can return to its original structure after the release of impact - meaning it has self-repairing properties unless the impact causes a permanent fracture of the materials.

"Based on the impact test result, a peak force reduction of up to 20.4% on the femur can be achieved if the EXO+ is worn in the intended position in the event of a fall," said Assoc Prof Soh Chew Beng, Programme Leader, Sustainable Infrastructure Engineering (Building Services), SIT. "The results show that the EXO+ is more effective at reducing impact forces on the femur during a fall, hence reducing

the likelihood of a hip fracture."

Research on the hip protector was funded under the Translational R&D and Innovation Fund (TIF) administered by Singapore's Ministry of Education. TIF supports applied research and translational projects, which can be developed in partnership with industry to enable new innovations, products, and services. The effectiveness of the impact absorbance of the hip pads has been validated by Cardiff University, with mechanical testing conducted according to the Canadian Standard Association 7325:20 for hip protectors for a simulated fall.

"We now have a better solution at hand. However, ensuring that the elderly understand and comply with wearing the hip protector at all times is still key. From the initial trial, we note that the hip protector can also enhance the elderly's confidence to walk about within the household independently. This will also go a long way in ensuring that our elderly can remain ambulant for as long as possible," said Ms Tan.



Donning the EXO+ hip protector has given Mr Mohamed Hafidz bin Samat, 59 (left), added confidence to walk more and rely less on his wheelchair. Photo courtesy of Ren Ci Hospital.

This article first appeared in SIT's Digital Newsroom.



The SIT team spearheading the development of the Virtual Reality Mobility Training include (from left) Assoc Prof Benjamin Soon, Health and Social Sciences; alumnus Mr Lim Zhiliang, Mechanical Engineering; and Assoc Prof Alfred Tan, Engineering.

## The Promise of VR for Patient Rehabilitation

SIT's Virtual Reality (VR) Mobility Training project aims to explore ways in which VR can help patients with mobility constraints relive meaningful daily experiences

A forward-thinking project by Assoc Prof Benjamin Soon, Health and Social Sciences, SIT, aims to combine VR technology and an omni-directional platform to improve rehabilitation efforts for patients with Parkinson's disease, stroke as well as impairments facing mobility constraints, by allowing them to relive meaningful daily experiences, such as grocery shopping in a supermarket, in a safe and pleasant virtual space.

The omni-directional VR treadmill, also known as the Kat Walk system, provides a platform for the user to walk on while waist-strapped for safety. In addition, users can rely on handlebars for support instead of roaming freely around in a room.

Different from traditional rehabilitation methods where patients are expected to walk or run on a conventional treadmill, the Virtual Reality Mobility Training

(VRMT)'s treadmill platform allows the user to decide whether to walk, run, sit or even squat.

The VR element allows users to immerse themselves in a virtual environment familiar to them. The system comes with 360° pre-recorded videos of real-life surroundings that simulate a realistic environment. Using the VR goggles, users will be able to see scenes of a recorded environment that move, according to their walking pace.

"The system will help train the muscles used in walking and standing balance. The VR element may even get users to go out and motivate them to use the system rather than lie in bed," said Assoc Prof Soon.

The Virtual Reality Mobility Training (VRMT) is a collaboration between faculty and students from SIT's Physiotherapy and Mechanical Engineering programmes; the Infocomm Technology cluster; the university's Professional Officers; and physiotherapists from Ng Teng Fong General Hospital (NTFGH).

Dr Cai Cong Cong, Senior Principal Physiotherapist from the Rehabilitation Department of NTFGH, added that the device represents a new treatment approach that could potentially improve rehabilitation efficiencies and patient uptake. "The gamification features may pique patients' curiosity and interest them to try the device," he said.

To date, the VRMT prototype has been tested on a total of 35 individuals, of whom eight are professional physiotherapists.

This article first appeared in SIT's Digital Newsroom.



# Mixed Reality App by SIT Faculty Debuts at Singapore Airshow 2022

Interdisciplinary team comprising SIT faculty and industry partners HOPE Technik and HelloHolo debuts a mixed reality application for design engineering and finite element analysis at Singapore Airshow 2022

Engineers who create and assemble large, heavy prototypes on the workshop floor are faced with work that is not only time-consuming but dangerous. This sparked an idea for Asst Prof Kyrin Jo Liong – what if design engineers could use holographic prototypes to optimise designs before any physical prototyping and assembly took place? Aside from being faster and safer, it would also be more cost effective.

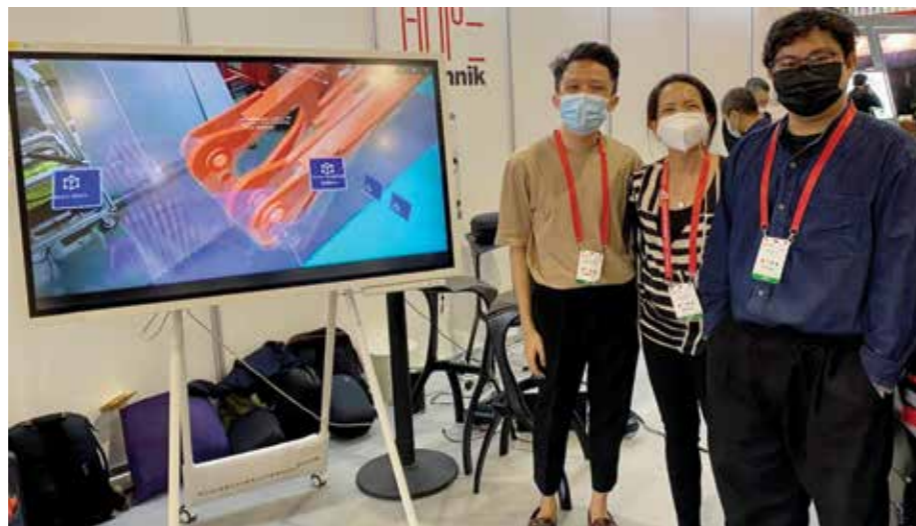
## Assembling an Interdisciplinary Team

Assoc Prof Jeannie Lee, Deputy Director of SIT's Centre for Immersification, led the overall development and software framework for the mixed reality (MR) application as well as the research investigation on the best user interface methods. She emphasised the importance of having an interdisciplinary team. "The combination of knowledge and expertise from different domains allows for different perspectives and creative solutions and applications," she said.

In addition to faculty staff from the Engineering and ICT academic clusters, Integrative Team Project (ITP) student teams as well as a bevy of student assistants from SIT also contributed. Industry collaborators



(Standing from left) Mr Tan Kian Ann, Business Development Manager, HelloHolo, Assoc Prof Jeannie Lee, Deputy Director, Centre for Immersification, SIT, Mr Kee Cheng Heng, Managing Director, HelloHolo, Mr Samuel Lee, Deputy CTO, HOPE Technik. (Seated from left) Assoc Prof Alfred Tan, Programme Leader, SIT-UofG Mechanical Engineering, Asst Prof Kyrin Jo Liong, SIT. Photo courtesy of Assoc Prof Jeannie Lee.



From left: Mr Tan Kian Ann, Business Development Manager, HelloHolo, Asst Prof Kyrin Jo Liong, SIT, Mr Emran Poh, Research Engineer, SIT. Photo courtesy of Asst Prof Kyrin Jo Liong.



The OL test case at the Singapore Airshow 2022, sized 3.5 metres long and 1.5 metres wide, with an expandable height of 2 metres. Photo courtesy of Asst Prof Kyrin Jo Liong.



Mr Samuel Lee, Deputy CTO, HOPE Technik, demonstrating how the MR app works with Microsoft HoloLens 2. Photo courtesy of Assoc Prof Jeannie Lee.

from HOPE Technik Pte Ltd, who served as the project's domain experts, and HelloHolo Pte Ltd, who co-developed the app, came on board as well.

## How the Mixed Reality App Works

A 4-tonne ordnance loader (OL) test case created by HOPE Technik was showcased at the Singapore Airshow 2022. Using the MR application, engineers could load digital models and test the feasibility of the assembly process of the OL deployed via a Microsoft HoloLens 2, a mixed reality headset. Design engineers would be able to safely navigate assembly issues prior to handling the physical prototypes. then start building the physical prototype once it reached a more stable stage.

## Potential Real-world Applications

Any industry that requires design engineering will be able to benefit from the MR application, which can be customised and refined to further integrate with the laws of physics for realistic real-world response. Instead of simply fitting pieces together, it can be used to test the weight-bearing properties of structures or identify stress points in the various components, thereby enhancing accuracy and the safety of the users.

"The application can provide visualisation and training in different engineering domains that require structured steps for performing a task. In the future, we could include remote collaboration and training features to further improve training and knowledge transfer," said Assoc Prof Lee.

Assoc Prof Alfred Tan also elaborated on the potential use of the MR application as an educational tool. He said, "It will benefit students who need extra help in visualising how components come together. The tricky part is how to devise a way to allow images seen by the user to be viewed by a larger audience group simultaneously."

The challenge is creating a steady image that can be viewed comfortably by an audience. Currently, the visualisations produced via the HoloLens while the user is moving around can be disorienting when viewed by an external party, and even cause motion sickness. A potential solution is to create a suitable tracking rail or slider for a camera that can capture multiple angles.

*This article first appeared in SIT's Digital Newsroom.*

## Growing Applied Research at SIT

This project was funded through SIT's quarterly Joint Ignition Grant, which provides a quantum of up to \$250,000. The team started work in October 2019 and the project will be finalised in July 2022.

The team from HOPE Technik said, "Working on this grant with SIT was a pleasure. It was organised, well-paced, and the team delivered according to plan."

Mr Kee Cheng Heng, Managing Director of HelloHolo added, "The partnership between SIT and HOPE has created a platform that allows us to explore how immersive media technologies can be applied in new and innovative ways. The research done on Finite Element Analysis (FEA), together with the ability of HoloLens 2 to visualise point cloud data, allows us to revolutionise and streamline the way engineering and manufacturing can be conducted."



Screenshot of a post from Jarrod's spaceytales Instagram account.

# SITizen's Space Illustrations Draw NASA's Attention

NASA sending Digital Communications & Integrated Media (DCIM) student Mr Jarrod Chua a direct message on Instagram is the start of great things to come

It was the height of the circuit breaker in 2020 and Mr Jarrod Chua, serving his National Service, was eager to get his creative juices flowing for a craft that he loves – graphic design. While musing his passions, an idea suddenly struck him – why not combine his deep-rooted fascination in space with his graphic design skills?

## From Fairytale to spaceytales

As a young boy, Mr Chua was intrigued by space but did not know how to put his interest into practice because science was not his strong subject. He eventually decided to make use of graphic design skills that he had picked up at Singapore Polytechnic. "I thought maybe I can create a



Mr Jarrod Chua is a Year 1 Digital Communications and Integrated Media (DCIM) student at SIT.

comic about space. So I combined the skills I had with my interest and 'spaceytales' was born," he said. The idea for the name came about as he imagined planets in the vast solar system that cannot be seen

with the naked eye but are full of life and wonder, almost like a fairytale. Swapping out the "fairy" with "space", he put together "spaceytales"!

The Instagram account 'spaceytales' was created to display his space designs in June 2020. Cute, witty and informative, readers can browse a variety of posts to learn something new about space. The account attracted 1,000 followers within a month and 8,655 followers by end 2021.

Famed space institution National Aeronautics and Space Administration (NASA) contacted him later, saying they were impressed with his work. Mr Chua's design was used for the launch of the James Webb Space Telescope in December 2021, the largest and most expensive telescope ever placed in space. It is worth US\$9 billion (approximately S\$12.5 billion).

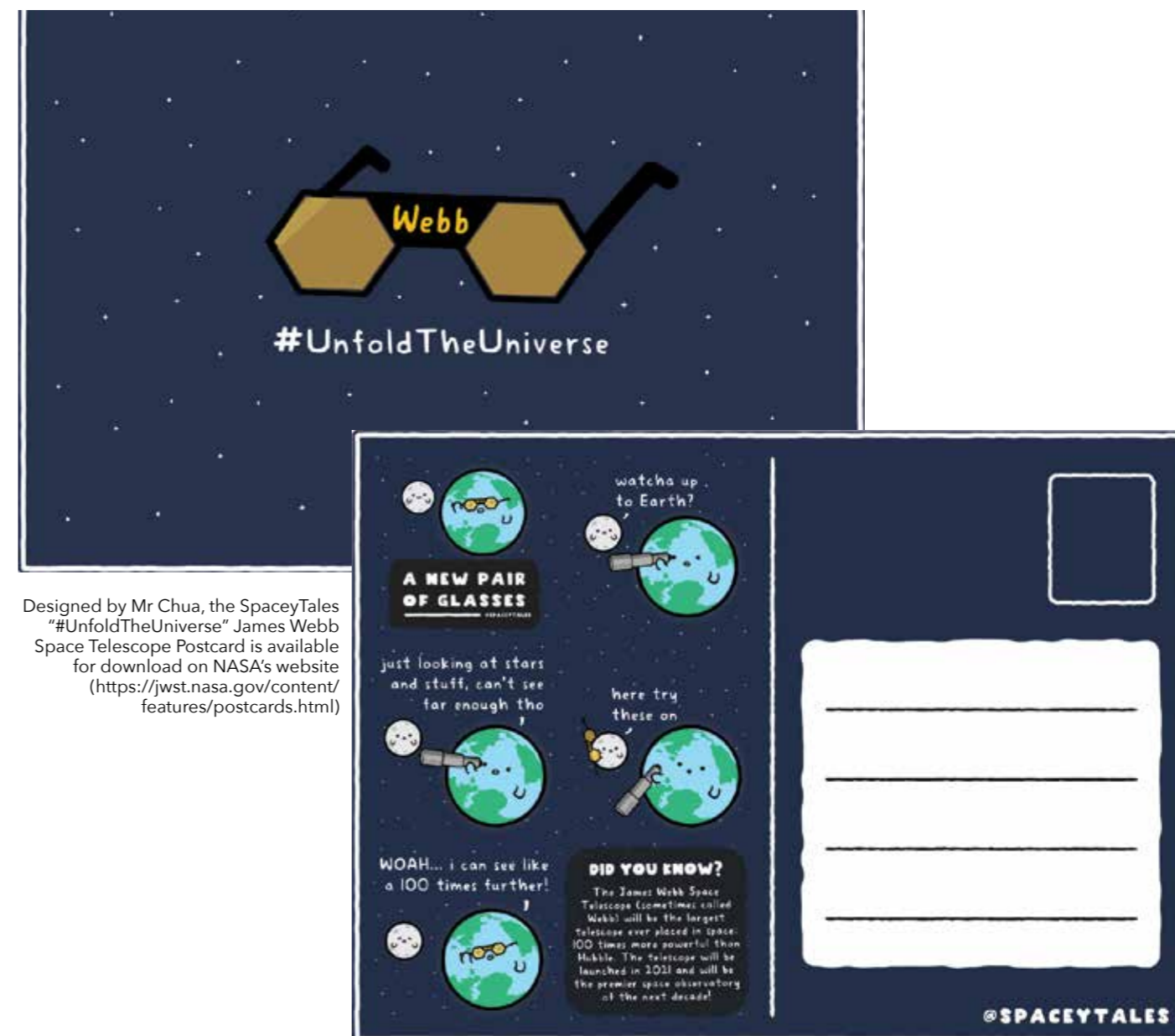
He stresses that his collaboration with NASA wouldn't have succeeded without SIT, saying that the university has helped him cultivate his skills in photography, storyboarding, animation, and advertising, and given him the ability to grow spaceytales into a bigger art brand. "When I was learning the Digital Advertising Branding Campaigning module, we were at the execution phase of the project and my lecturer helped me to better understand the different media aspects involved in advertising," he said.

Mr Chua now hopes to one day work for NASA in the public outreach or design department and share more knowledge about space. "While I can't personally contribute much in the physics or

astrophysics department of space, I hope to inspire the next generation to look up to the skies and work to become the future astronaut or physicist so that we can make progress within the space industry."

Ms Angela Ng Shueh Ching, Senior Lecturer, DCIM, believes he has room to unlock his full potential. "Now is the time for Jarrod to build a portfolio that will attract the interest of international clients. Jarrod is imaginative and I see him pushing his creative boundaries. There is room for personal growth in terms of skill sets and exposures, and he has the potential to grow into a great graphic designer as long as he keeps harnessing his imagination," said Ms Ng.

*This article first appeared in SIT's Digital Newsroom.*



Designed by Mr Chua, the SpaceyTales "#UnfoldTheUniverse" James Webb Space Telescope Postcard is available for download on NASA's website (<https://jwst.nasa.gov/content/features/postcards.html>)

# Hacker Turns Award-Winning Cybersecurity Defender

Alumnus and Cybersecurity aficionado Mr Yu Pengfei, winner of the Student Award at the Association of Information Security Professionals (AiSP) Cybersecurity Awards 2021, encourages an open and inclusive cybersecurity community through the N0H4TS movement



Mr Yu Pengfei (left) accepts the Student Award at the prestigious AiSP Cybersecurity Awards 2021, presented by Mrs Josephine Teo (right), Minister for Communications and Information & Second Minister for Home Affairs, on 14 January 2022. He is now a Cybersecurity Specialist with GovTech.

## From Offence to Defence

Mr Yu Pengfei first attempted to hack into games after picking up basic programming knowledge in his teenage years.

While playing online role-playing game Perfect World, he succeeded. "I realised all the information was stored on my computer, and not on the game's server," he said. So he cheekily raised the powers of his character, disrupted the game's server and even took much joy in 'killing' off other players. His breakthrough was somewhat accidental – he did not quite understand how he managed to infiltrate.

Institutes of higher learning, and in particular the Singapore Institute of Technology (SIT), would help him figure it out. Mr Yu later enrolled into SIT's Information and Communications Technology (Information Security) degree programme to deepen and sharpen his cyber defence skills, which would eventually turn him from an offender into a defender.

## Learning Through Playing

The practical, even fun, way in which SIT approached cybersecurity dovetailed perfectly with the active and playful young man. Instead of regular paper-based tests, his professors in SIT used Capture-the-Flag games.

The more flags captured, the higher the grades.

Mr Yu and his classmates were also tasked to exploit vulnerabilities within web servers hosted by Asst Prof Goh Weihang during his Digital Forensics and Web Security class. "Using particular frameworks and methodologies learnt in class, we had to trigger specific vulnerabilities to catch a flag, and subsequently claim points," he said.

This is to understand the attacker's methodology, also called red teaming. Then students were taught how to secure these vulnerabilities from a defender's point of view, also known as blue teaming.



Multiple award winner Mr Yu Pengfei, who found his passion in upholding cybersecurity, took part in various competitions to pit his skills in both local and international arena.

Such training was further enhanced during his Integrated Work Study Programme (IWSP) with GovTech Singapore, when he was tasked to develop an application capable of detecting code vulnerability. Eventually, it landed him a job as a Cybersecurity Specialist with GovTech.

## The N0H4TS Movement

His work with N0H4TS has garnered him the most attention. Together with three friends, they set up a club to provide support in the cybersecurity field – a support which extends beyond campuses. "It was quite difficult to find a group where I could come in and talk to people about certain aspects of cybersecurity that interest us. So that's what made us start it," said the 25-year-old SIT alumnus.

N0H4TS is about constantly learning and exploring. Its logo says 'You Know Nothing', telling its members to start from a fresh slate, before deciding what hat to wear. "Always be open to learn new stuff and relearn what you've been taught," he added.

Now, the movement is a non-profit organisation that hosts multiple cybersecurity events and online Capture the Flag leagues that garner over 300 participants from various institutes of higher learning in Singapore.

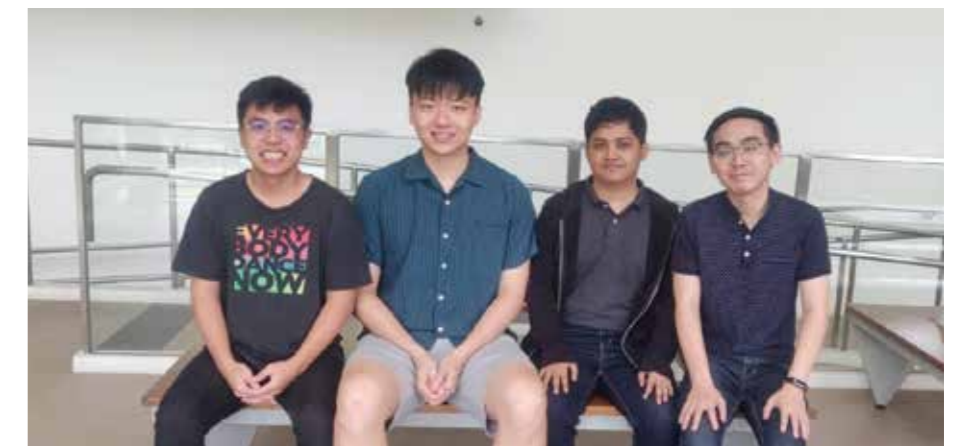
It is followed by an annual Cyber League Playoff between the top

think of no better avenue for his achievements and contributions to be recognised than the AiSP Cybersecurity Awards," he said.

Having accumulated more than 10 achievements in local and international competitions – including emerging First Place at the Kaspersky Secur'IT Cup (APAC-Regionals) and First Runner-up at the Kaspersky Secur'IT Cup (Global) from 2019 – 2021, the cybersecurity aficionado looks forward to continue giving back to the community.

"I may also consider exploring my interest in cybersecurity research further in the near future," shared Pengfei, whose favourite SIT-DNA trait is 'Able to Learn, Unlearn and Relearn'. "It is extremely important to keep learning, especially in the ever-changing field of cybersecurity."

*This article first appeared in SIT's Digital Newsroom.*



N0H4TS founders and SITizens (from left) Mr Hong Xuan Lim, Mr Yu Pengfei, Mr Aizuddin Akmal and Mr Matthews Loke.



Mr Yu Pengfei and Asst Prof Goh (right) in a deep discussion at the Kaspersky 2019 Secur'IT Cup Finals in Lisbon, Portugal.

Photos courtesy of Association of Information Security Professionals (AiSP) and Mr Yu Pengfei.

# Passing on a Legacy of Success

A new generation of Hospitality Business, Digital Communications and Integrated Media, as well as Civil Engineering undergraduates will be supported by the ELK Bursary at SIT

The estate of the late Mr Eng Liat Kiang, a respected leader and businessman in the Teochew community, has made possible the new **ELK Bursary** at the Singapore Institute of Technology (SIT) with an endowed gift of \$1 million.

Open to undergraduates from the Hospitality Business, Digital Communications and Integrated Media, as well as the Civil Engineering degree programmes, the ELK Bursary seeks to inspire in them tenacity and a positive outlook to rise above their circumstances. Valued at \$5,000 each, at least six or up to nine Bursaries will be given out annually and in perpetuity, from the new Academic Year (AY) 2022/23 onwards.

Mr Eng was the Founder Chairman of Sin Heng Chan Group, but he had come from an impoverished background. His parents passed on when he was three, leaving him under the charge of his elder siblings. He first set foot on the shores of Singapore in 1936 with little on him, and he soon found work earning a meagre income. Knowing that he would need to be able to communicate with people from different cultural backgrounds and ethnic groups to make a livelihood, he taught himself languages such as Malay, English and Indonesian from books. With a strong entrepreneurial spirit burning in him, he opened his first provision store on Rochor Road together with two friends.

Experiencing World War II also made Mr Eng more determined to overcome any hardship and in 1947, he started Sin Heng Chan which focused on rice trading. The business grew rapidly. Now known as The SHC Group, it is one of Singapore's longest privately owned corporations with a focus in two key areas – property development and hospitality management.

Said Mr Eng Bak Chim, Managing Director, The SHC Group, "The late Mr Eng believed that possessing strong willpower, determination and the ability to endure difficulties, will see one through many challenging moments in life. We hope that this bursary will encourage students at SIT to press on and see difficulties encountered in their lives as opportunities for growth."

Said Prof Chua Kee Chaing, President, SIT, "I just wish to say how much we appreciate this generous gift for our students. Many of our young SITizens come from less privileged backgrounds and are the first in their families to attend university. This very thoughtful gift from the Estate of Mr Eng Liat Kiang will give them the support they need to focus on their studies and help them realise their potential, in spite of their financial circumstances. The ELK Bursary will generate a positive multiplier effect, for the industry and the community, in years to come."



Pictured here: The late Mr Eng Liat Kiang.



The permanent Rotary Club of Tanglin & Alvin Goh Scholarship is applicable to undergraduates from all disciplines at SIT.

## When Rotarians Come Together

**New scholarship at SIT to nurture academically talented leaders, thanks to the Rotary Club of Tanglin and Mr Alvin Goh**

In November 2021, members of the Rotary Club of Tanglin, Singapore, together with Mr Alvin Goh, the Club's Immediate Past President, banded together to make a gift to establish the endowed **Rotary Club of Tanglin & Alvin Goh Scholarship** at the Singapore Institute of Technology (SIT).

Applicable to undergraduates pursuing any degree programme at SIT, this Scholarship will

be awarded to academically outstanding students who have demonstrated leadership skills and made significant contributions beyond academic studies to SIT or the community. Valued at \$5,700 each, one Scholarship will be awarded annually and in perpetuity, from Academic Year 2022/23 onwards.

Said Mr Alvin Goh, President (Rotary Year 2020-21) of the Rotary

Club of Tanglin, Singapore, who spearheaded the fundraising efforts for the Scholarship, "The Club and myself are very proud to be able to nurture talented young leaders at SIT for the future. The Rotary Club of Tanglin, Singapore is committed to service, and we find a resonance in SIT's endeavours to develop individuals who build on their interests and talents to impact society. It is our hope that this Scholarship will create a ripple effect in the lives of the recipients and the people that they go on to serve."

This is not the first time that members of the Rotary Club of Tanglin have come together to nurture students at SIT. Earlier in 2018, the Club had made possible the Rotary Club of Tanglin & Tong Kok Chiang Scholarship. The Rotary Club of Tanglin, Singapore, was founded in April 1984 and its members have been involved in many areas of service to reach out to different groups of people including the sick, the handicapped, the underprivileged and those afflicted by natural disasters.

Said Prof Chua Kee Chaing, President, SIT, "SIT is grateful to have found such inspiring friends in Mr Alvin Goh and the members of the Rotary Club of Tanglin, Singapore. We are also very honoured to have the Club's steadfast and nurturing support since 2018. I have no doubt that this impactful Scholarship will nurture community leaders who have a heart to serve, much like the Rotarians who have made possible this Scholarship."

# Yusof Ishak Scholars: SIT's Budding Service Leaders for Tomorrow

Brimming with promise, purpose and passion, the first 3 recipients of the Yusof Ishak Scholarship share their dreams and aspirations with SITizen Bi-Annual

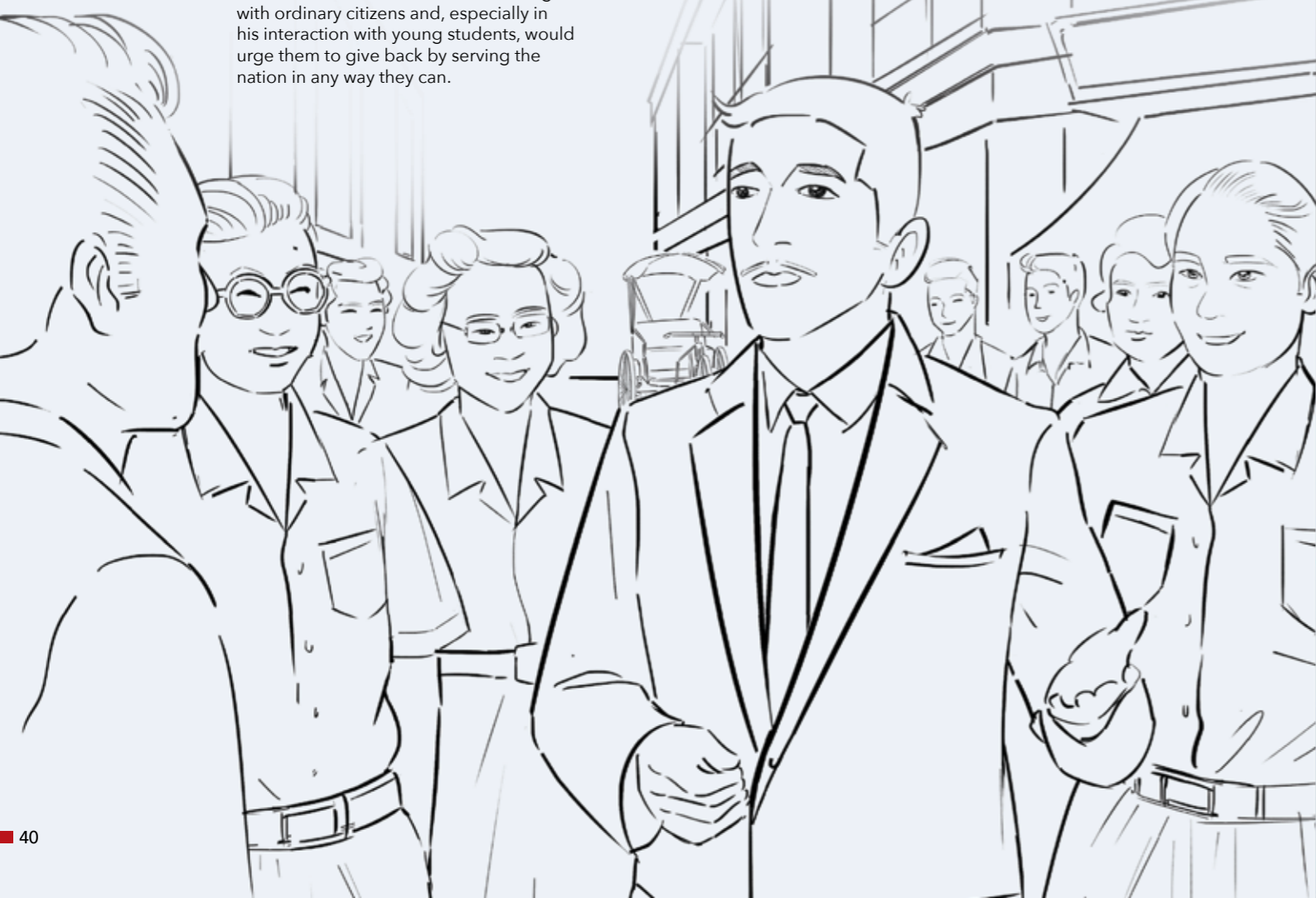
The first President of Singapore (1965 to 1970), Encik Yusof Ishak was known as the People's Champion for his firm commitment in promoting meritocracy, multiculturalism and racial harmony. Throughout his Presidency, Encik Yusof emphasised the importance of education.

He saw it as being crucial for the nation's development, and as the avenue to learning more about other cultures and communities.

Thanks to the generous support from various donors, the **Yusof Ishak Scholarship** has been established at the Singapore

Institute of Technology (SIT) in honour of the late President, with the blessings of his family and the support of the Ministry of Education. Valued at \$15,000 each, this prestigious scholarship aims to nurture student excellence in academic studies as well as service leadership.

President Yusof Ishak took time to mingle with ordinary citizens and, especially in his interaction with young students, would urge them to give back by serving the nation in any way they can.



## A Passionate Voice for Pups and Children

When final-year Air Transport Management student Mr Darrol Tan first started volunteering at Causes for Animals, an animal shelter, he realised that street dogs were often misunderstood. "Some people have the misconception that street dogs attack people, but they are actually just trying to fend for themselves when they sense danger," he said.

He joined SIT Whiskurs, an animal welfare and awareness initiative, in hopes of raising awareness and promoting adoption. As the Head of Publicity, he generated educational content and organised webinars to educate members on street animals and the awareness of animal cruelty in Singapore.

Mr Tan is also currently a volunteer trainer in the Digital Scientist programme conducted by Central Singapore CDC, which holds workshops that involves science concepts and coding outcomes for children from low-income families.

"I hope to bring fun in learning science for the children and learn how to communicate with them better through the process!" he said.

## Looking Forward to Paying it Forward

Second-year Mechanical Engineering student Mr Muhammad Syahrul Mirza Bin Sulaiman expressed that receiving the Yusof Ishak Scholarship was a validation of him as someone who possesses the potential for the future of the society.

His decision to pursue a degree after completing his polytechnic education was driven by his passion and interest to broaden his knowledge as an engineer.

Upon graduation, he is looking forward to getting into a good company where he can contribute using skills gained at SIT. "I also look forward to collaborating and networking with new colleagues, sharing my ideas with them," he said.



## Giving her Heart to Physiotherapy and the Elderly

First-year Physiotherapy student Ms Chew Wen Jing was once unsure about her aspirations till she encountered a Physiotherapy speaker during her first year in junior college. Ms Chew then realised that she shared the same passion.

She is now most passionate about geriatric care, and says she looks forward to honing her skills and equipping herself with the necessary knowledge through her course at SIT.

Ms Chew also volunteers with YMCA occasionally, befriending the elderly who live alone on alternate weeks, helping them with their house chores and checking in on their well-being. "At first, I was worried about the potential language barrier since the elderly mainly spoke in dialects. But I could tell they really enjoyed the company, so I always look forward to visiting them again," she said.

# Over \$1 Million Raised to Establish the Sang Nila Utama Scholarship at SIT

The endowed scholarship aims to nurture first movers who will drive growth areas of the economy



From left: Prof Tan Thiam Soon, Institute Professor, SIT, Ms Tan Ci En, Anne, SITizen Ambassador, Mr Edy Hardijana Tjugito, Director, PT. Eagle Indo Pharma, Mr Ahmad Syafiq, Sang Nila Utama Scholar, Prof Chua Kee Chaing, President, SIT, Mr Adley Michael Pereira, Sang Nila Utama Scholar, Mr Bahren Shaari, CEO, Bank of Singapore, Prof Yaacob Ibrahim, Advisor, Office of the President, SIT, Ms Divya Patel, COO, Ishk Tolaram Foundation.

A new scholarship named after the 13th-century Palembang prince who according to tradition founded the Kingdom of Singapura has been established at the Singapore Institute of Technology (SIT). At least two students at SIT will be supported annually by the Sang Nila Utama Scholarship, which is valued at \$15,000 each.

This prestigious scholarship has been made possible by a group of five individual and corporate donors thus far, whose generous giving (together with the Enhanced

Government Matching Grants that their gifts have attracted) have resulted in an endowed fund of more than \$1 million that will support this scholarship in perpetuity.

The Sang Nila Utama Scholarship at SIT is open to undergraduates who are pursuing a full-time degree in Engineering, Infocomm Technology and the Health and Social Sciences, who have achieved outstanding academic results and have made contributions beyond academic studies to their university or the community.

Mr Adley Michael Pereira, one of the first two recipients to be awarded the Sang Nila Utama Scholarship, is a final-year Mechanical Engineering student who is currently doing his Integrated Work Study Programme (IWSP) at Lumileds as a Process Integration Engineer. "I feel very honoured to have been selected for this scholarship, and grateful as well," he said. "It has allowed me to replace my seven-year-old computer for a new one to create 3D drawings, CAD drawings and fluid simulations in my studies."

He has already taken the step to contribute back to the community through Magical Hearts, his co-curricular activity at SIT that organises community outreach programmes with Aphasia SG (among other organisations) to perform and teach magic tricks to beneficiaries to help them communicate. Aphasia is an acquired communication disorder that occurs after parts of the brain controlling language are damaged, for example after a stroke. "I hope to hone my leadership skills and grow to become the kind of leader who can understand the issues my peers face and help them through it," Mr Pereira said.

Said Mr Bahren Shaari, CEO of Bank of Singapore, who has been championing the fundraising initiative, "The intent is to make possible a scholarship that will nurture budding professionals who will be first movers in the community as well as the growth areas of the industry."

"The gift of education is the best gift that we can give someone. I believe that there is a need for us to champion equal opportunity, and especially to create opportunities for young people to realise their aspirations. I am pleased to be able to help," he added.

Said Prof Chua Kee Chaing, President, SIT, "On behalf of SIT, I wish to thank all the donors who have supported the Sang Nila Utama Scholarship. We are very grateful for their inspiring philanthropic leadership to nurture the values of initiative, dynamism, and service. We very much look forward to seeing more donors joining them in supporting this scholarship."



Mr Adley Michael Pereira (top) and Mr Ahmad Syafiq (above) sharing their stories about how the Scholarship has impacted their lives. The inaugural recipients of the Scholarship met with some of the donors of the Sang Nila Utama Scholarship at an appreciation ceremony on 5 January 2022.



Prof Chua Kee Chaing, President, SIT, (right) presents Mr Bahren Shaari, CEO, Bank of Singapore, (left) with a framed Tembusu leaf as a token of appreciation. The Tembusu Tree is native to Singapore and is also a featured symbol of Singapore's five-dollar note.

\*This event was held in accordance with existing safe management measures as of January 2022.



# Capital! SITizens Get a New Bursary to Count On

Bond Capital Bursary, made possible by Mr Lim Sze Wee, will nurture deserving undergraduate students throughout their entire course of studies from AY 2023/24 onwards

Future undergraduate students at the Singapore Institute of Technology (SIT) who are eligible for financial aid can look forward to a new source of support beginning in Academic Year (AY) 2023/24, when the first two **Bond Capital Bursaries** will be awarded.

Made possible by a generous endowed gift from Mr Lim Sze Wee, the Bond Capital Bursary (valued at \$5,000 each) aims to support first-year students enrolled in any full-time degree programme offered at SIT over their entire course of studies. At steady state (from AY 2026/27 onwards) at least four and up to five Bursaries will be awarded, each year and in perpetuity.

Said Mr Lim: "SIT's cause to maximise the potential of its students to become thinking tinkerers, lifelong learners and catalysts for transformation who will care for the community is a compelling one. I hope the Bond Capital Bursary will help ensure that these students will be able to make full use of all their learning opportunities at SIT, without being hindered by financial hardship and worries. Through their SIT education, I hope the bursary recipients will be enabled to create a better tomorrow, not just for themselves but also for their families and the community."

**We are very thankful for Mr Lim's generous gift to nurture our students. The endowed Bond Capital Bursary, which aims to support the recipients over the entire course of their studies, will be especially impactful for our undergraduate students, many of whom come from less privileged backgrounds and are the first in their families to attend university.**

*Prof Chua Kee Chaing  
President, SIT*



Scholarship recipients (from left) Mr Muhammad Syahrul Mirza Bin Sulaiman, Mr Jerome Chua and Ms Lee Rui Yi are all smiles with their scholarship certificates.

# It's So Much More than Collecting a Certificate!

The certificate collection sessions give scholars and award winners a special bonding opportunity to share their passions and future hopes

For Mr Muhammad Syahrul Mirza Bin Sulaiman, receiving the Yusof Ishak Scholarship represented a new beginning for him. The 24-year-old Mechanical Engineering undergraduate said, "Receiving the Yusof Ishak Scholarship is not just about receiving financial support for me. It tells me I am seen as having potential for the future of our society. I hope one day I can also give back and change someone's life like the donors have changed mine."

Mr Muhammad Syahrul was among the 245 scholarship and award recipients who gathered at SIT@Dover over two weeks from February to March to collect their physical certificates. Their awards and scholarships had been presented at the Recognition of Excellence, which was held virtually in October 2021. (In pre-COVID years, the recipients would have been able to gather at the presentation ceremony to receive

their certificates and meet with the donors who nurture them). These days, the certificate collection sessions also serve as small-group meetups for the students to get to know their fellow scholars and award recipients better.

Mr Jerome Chua, a recipient of the KKH Scholarship, was glad to be able to interact with his peers. He was especially relieved and grateful for the Scholarship, as it

gave him the peace of mind to focus fully on his academic studies and his co-curricular activities. During his session, Mr Chua shared about his activities as the President of SIT's Foodie Connect Club, such as creating a food recommendation list together with his club members, and organising a visit to a goat farm. The Food Technology undergraduate is looking forward to a career in the food industry. He said, "After my internship with TetraPak, I am intrigued by beverage processing and packaging technology."

At her session, Ms Lee Rui Yi found out more about the SIT Alumni Mentoring Programme. She said, "I am interested to sign up as a student mentee in the next cycle. I'm also immensely grateful and overjoyed to have received the Kewalram Chanrai Group Scholarship. This Scholarship has lightened my financial burden which not only allows me to fully focus on my studies as a Year 1 Diagnostic Radiography student, but also to pursue other interests such as raising awareness for

wildlife conservation." She is the Head of Programs of SIT Whiskurs, an animal welfare and awareness initiative. She is planning to organise events to educate her fellow SITizens on how to coexist with Singapore's native wildlife and provide good care for their pets.



Recipients find the opportunity to mingle and network at these sessions. They also find out more about other opportunities to engage with their fellow alumni.



# The Mapletree Challenge 2022 Grand Final

Five teams battled it out to showcase sustainable innovation solutions that address societal concerns and challenges



The top three teams of The Mapletree Challenge 2022 with Minister of State Low Yen Ling and senior management of SIT and Mapletree.

Mapletree Investments Pte Ltd and the Singapore Institute of Technology successfully concluded the third edition of The Mapletree Challenge Grand Final. Two teams of SIT students – RADnovation and The Gastronomists – impressed the judges with their sustainable innovation proposals and emerged joint champions among the five finalist teams from SIT. The two winning teams each walked away with a cash prize of \$5,000 and the winners' trophies.

Team RADnovation, comprising six Year 2 Mechanical Engineering students, created a portable rehabilitation device that allows patients to perform exercises from home. The Gastronomists, made up of five Year 2 Food Technology students, proposed to repurpose spent coffee grounds to grow oyster mushrooms in a growing kit.

The Mapletree Challenge Grand Final was held at Mapletree Business City on 5 May 2022.

Guest-of-Honour Ms Low Yen Ling, Minister of State, Ministry of Trade & Industry and Ministry of Culture, Community and Youth graced the event and presented the awards to the top three winners.

SIT President Prof Chua Kee Chaing said, "We are delighted to continue partnering Mapletree to inspire another batch of SITizen thinking tinkerers who will potentially make meaningful contributions to society. The Mapletree Challenge



complements the University's pedagogy perfectly in that it enables our students to use their knowledge and skills to innovate and address problems of concern to society."

Mr Edmund Cheng, Mapletree's Chairman said, "The Mapletree Challenge has continued to support SIT students in their entrepreneurial journey for the third year running. We are glad to see SIT students constantly innovating and coming up with new ways to live sustainably. It is our hope that The Mapletree Challenge will inspire them to dream big and make a difference in today's world through their innovations."

This year's Challenge with the theme, Improving Our World through Sustainability and Innovation, saw the participation of 120 SIT students in a series of face-to-face and virtual training and mentorship programmes in the preparation stage of the Challenge. From January to May 2022, these participants attended six masterclasses on personal leadership, value pitching and financial literacy; a forum discussion on entrepreneurship and sustainable innovation by leading young entrepreneurs; as well as small group mentorship from industry experts on their entrepreneurial ideas.

Some of the ideas presented by the other teams include a sustainable water generation equipment that converts oxygen into water using solar energy, a mobile app for cyclists, and producing fish fingers from locally sourced ingredients with the lowest carbon footprint.

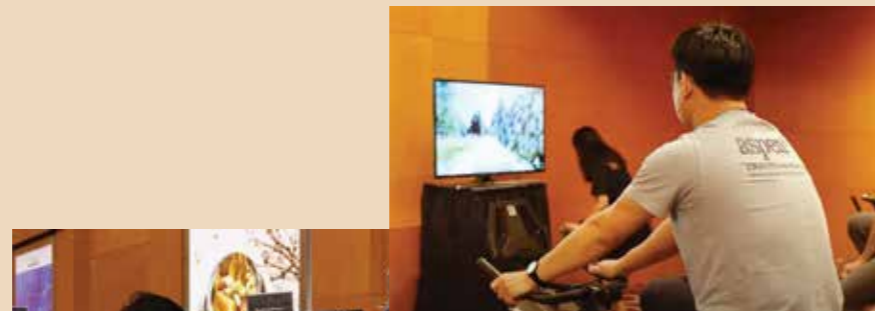
This article first appeared in SIT's Digital Newsroom.

## The Mapletree Innovation and Entrepreneurship Forum



The panellists at The Mapletree Innovation & Entrepreneurship Forum sharing their experience and guidance to would-be entrepreneurs from SIT. From left: Ms Simarna Singh, Social Entrepreneur/International Keynote Speaker on Sustainability, Mr Logan Tan, CEO & Co-Founder of Eezee, Mr Eugene Yeo, Serial Entrepreneur and ex-CIO of MyRepublic and Mr Farhan Firdaus, Partner, Meet Ventures.

Held on 19 March 2022 at Resorts World Sentosa, The Mapletree Innovation & Entrepreneurship Forum was organised by a committee made up of 14 Year 2 students from SIT's Hospitality Business programme, as part of a real-world project for their studies. For the first time, the day's programme not only featured a panel discussion, and it also included four breakout sessions as well as an experiential foyer for the 130 attendees. The experiential foyer featured an energy playhouse, which gave attendees an opportunity to take part in hands-on activities which shed light on the amount of energy required to power daily devices, an ideation corner as well as exhibits showing prototypes from previous projects submitted for The Mapletree Challenge.



Among the activities available at the experiential foyer were an energy playhouse (top and bottom) and an ideation corner for sparking innovations (left).



# Strategise, Support and Shoot!

SITizen Ambassadors meet at long last, getting to know one another better over an exciting game of laser tag

SITizen Ambassadors (SAs) have played an important role in supporting SIT's Advancement and Alumni Division (A&A) events, especially so in the last two years where they facilitated virtual meetings between Alumni mentors and Student mentees in various cycles of the SIT Alumni Mentoring Programme.

On Saturday 14 May 2022, 14 SAs finally met up offline for the first time amid the pandemic. At the event hosted by A&A, they first enjoyed a hearty lunch at Nando's before getting their adrenaline pumping in a fast-paced game of laser tag at Laser Quest @ Tampines HomeTeamNS. During the afternoon, they got to know one another better and gain a deeper understanding of the twin functions of A&A – which is to encourage and secure philanthropic giving in support of SIT and its students, while also serving as SIT's main point of contact for all alumni to connect back with their alma mater and with one another.

The SAs had a blast, firing and dodging shots while supporting their teammates and attempting to complete their mission in the



SITizen Ambassadors fuelling up before the game.



All smiles around the table!

black-lit arena. Year 2 Hospitality Business student Mr Mohamad Irfan Bin Roslee said, "Echoing Barney Stinson from the well-known sitcom 'How I Met Your Mother', laser tag is awesome! The activity really allowed everyone from SAs to the A&A team to let loose for a moment and just enjoy themselves."

Year 2 Accountancy student Mr Melvin Tan shared the same thoughts. "I enjoyed competing and teasing the lowest scorers on their questionable strategy during the games. I also got to know all of the members on a personal level, and it was an enjoyable experience expanding and strengthening our relationships with one another," he said.



All decked out and ready to have fun!

# Great to Mentor in Person Again

After a long period of only being able to communicate virtually, participants of the SIT Alumni Mentoring Programme are finally enjoying face-to-face activities with the easing of COVID-19 restrictions

Mentors and mentees from the SIT Alumni Mentoring Programme have had a fruitful journey so far, despite limitations due to safe-distancing measures. Having recently concluded its fourth cycle, the programme has already successfully matched a total of 210 alumni mentors and 243 student mentees since it was first launched in September 2020. At least 20 mentors returned from previous cycles to join Cycle 4 and share their academic knowledge and career experiences with their SIT juniors.

## Cycle 3: Get-Togethers, Online and Offline

Alumni Mentors from Cycle 3 had the valuable opportunity to meet with industry leaders at a virtual Mentor-Get Together Session on 16 December 2021. Mr Kanthiban

Mentors and mentees were happy to gather for a long-awaited meetup in a casual setting.

Mr Rajasegran (left) and Ms Wu (2nd from left) having a productive chat with the Cycle 3 mentors, all eager to listen and learn.



Rajasegran, CEO and Founder of Business Engineers Asia Pte Ltd and Ms Angela Wu, Staff Threat Intelligence Analyst, VMWare, shared their experiences in leadership and mentoring at the virtual event that also included a Q&A session. The participants took away important tips on how to face challenges in the workplace, and how they could better guide their mentees.

Before the conclusion of Cycle 3, the participants enjoyed some in-person networking at a Mentor-Mentee Meetup held at Projector X: Riverside on Saturday, 19 February

2022. This was the first time in a long while that they could finally gather and catch up over drinks.

Hospitality Business alumnus and first-time mentor Mr Jenson Seah felt the programme has given him an opportunity to stay connected with SIT, and concurrently exchange knowledge and experience with his mentee. "We instantly clicked and I was able to provide academic and career guidance to my mentee, and give her assurance and encouragement during her internship programme," he shared, adding that he also enjoyed the in-person interaction.



No better way to make new connections than over delicious bites!

## Cycle 4: A Meeting of Minds Over Scrumptious Bites

Cycle 4 officially commenced in March 2022, matching a total of 56 alumni mentors and 59 student mentees. This cycle, students had the opportunity to meet with their potential mentors and get to know them at a virtual Meet-the-Mentors session before their official match-up.

Mentors and mentees also had the chance to meet in person and interact with other participants in the programme at specially-organised mentoring dinners, held from 25 April to 12 May 2022.

Mr Alexander Quah, a Year 2 Mechanical Design Engineering student, said that at first he was curious what a mentor could bring to the table, but it turned out to be a "match made in heaven". "We have quite a lot in common, including a similar engineering background, similar professors, and even received the same scholarship," he said, referring to his mentor Mr Edward Dassan Rajanderan, a Mechanical Design and Manufacturing Engineering graduate. "It feels good to have a mentor that is a great listener and gives great advice, and his experiences have helped guide me through challenges I faced in my school activities. We can even chat about life like normal friends!"

## Cycle 1 & 2: A Time to Appreciate



Mentors and mentees from the first two cycles seized the chance to meet face-to-face at the Cycle 1 & 2 Appreciation Ceremony held at Projector X: Riverside on Sunday, 16 January 2022. This was the programme's first physical event since April 2021.

Besides a catchup session, the participants enjoyed a movie screening of Good Will Hunting, with the mentors receiving a pleasant surprise – personal videos of thanks that their mentees had prepared for them. They were also presented with certificates of appreciation to commemorate their completion of the programme.

At the event, Mr Tan Wei Liang, a mentor from Cycle 1 to Cycle 3, shared that he still finds himself learning from his juniors and the different perspectives that they bring to the table. "We all change in life and I think between seniors and juniors, we can help each other mature multi-dimensionally," he said. He also encouraged students who are graduating soon to consider becoming mentors themselves.

Mr Oak Soe Paing, an Electrical Engineering & IT graduate and Cycle 2 mentee, intends to do just that. "My mentor has made my transition from student to working adult a smoother journey, and I hope to pay that forward," he said. "I find that one of the greatest satisfactions is being able to inspire someone, and having them come back to tell me that I have made a difference in their life."





Reach for the ball! Participant from the Business, Communication and Design cluster attempts to intercept the ball from Engineering cluster opponent at Captain's Ball.

# A Battle of Brawn and Brains... at the Inter-Cluster Games 2022

Health & Social Sciences Cluster retains its championship title while the Alumni Cluster clinches third place



Former ICG 2021 organising committee member and Criminology and Security graduate Ms Natassa Tan witnessed the joy expressed by participants while playing with their friends at last year's ICG and she wanted to experience it for herself. She took part in Captain's Ball with fellow ICG 2021 organising committee members, using this opportunity to meet up with them and they won the bronze medal. "It was pretty unexpected, we joined with the intention to just enjoy ourselves and have fun. It was also nice to experience the competitive spirit among the various clusters," said Ms Tan.

Three-time participant Telematics alumnus Mr Sean Sin knew he had to sign up for ICG 2022 as sports competitions were rare due to the pandemic. To him, it was a good platform to meet new and old friends. He was also part of the winning team that bagged the gold medal at Basketball. "It was a pleasant surprise as most of us were strangers. We did not know one another's strengths and weaknesses and did not know how to work as a team. However as the competition went on, we somehow found our groove and emerged as champions," he said.

- 1 Alumni Cluster representatives flashing smiles and their gold medals won at Bowling.
- 2 Food, Chemical and Biotechnology representative is poised for a strike!
- 3 Health & Social Sciences representative attempts to dribble the ball away from the Alumni opponents at Futsal.
- 4 Shuttler from the Business Communication and Design Cluster swoops in to send the shuttlecock flying back to opposing team.
- 5 Health & Social Sciences participant tries to block the shot.
- 6 Alumni work together as a team to take down their competition on Mobile Legends: Bang Bang, a mobile multiplayer online battle arena game.
- 7 Locked in a battle of wits: Alumni representative ponders about his next move on the board.



A dose of cluster pride and love for the game drew 57 alumni back to SIT@Dover campus to compete at the Inter-Cluster Games (ICG) 2022. Held on 5 March 2022, the annual event saw five SIT academic clusters (Business, Communication and Design, Engineering, Food, Chemical and Biotechnology, Health and Social Sciences, Infocomm Technology) along with the Alumni cluster compete in nine different sports: Basketball, Badminton, Bowling, Chinese Chess, Chess, Captain's Ball, FIFA, Futsal and Mobile Legends: Bang Bang.



# A Zoomin' Good Time

SIT Alumni Network events, held via Zoom from December 2021 through April 2022, continued to be a hit among alumni who were looking to stay fit, make crafts, and even learn how to invest!

## HOLIDAY RESIN ORNAMENTS WORKSHOP SIT Alumni Leisure Network 8 & 9 December 2021



Wrapping up 2021's calendar of activities, 52 alumni attended the Holiday Resin Ornaments Workshop to learn to create the perfect holiday ornament. In line with the festive season, participants were provided with silicone moulds in the shape of a bell, a tree or a star.

**I've worked with resin once before to create an ornamental dish, but this time felt slightly different as I got to use different tools like a torch!**

**Ms Rebecca Fam**  
Physiotherapy (Class of 2017)

## BOTANICAL LUXE RESIN DISH WORKSHOP SIT Alumni Leisure Network 20 Jan 2022



Following the popularity of previous resin workshops (Resin Cheeseboard Workshop, Resin Marbled Coaster Workshop and the Holiday Resin Ornaments Workshop), craft studio Room to Imagine led the Botanical Luxe Resin Dish Workshop for SITizens. Over the span of two hours, close to 50 participants came together to create a customised dish by encasing pressed flowers and leaves in resin. They were each provided with a porcelain dish and a variety of premium flowers and leaves to lay out in their preferred design.

**I love all sorts of DIY workshops. It was challenging to keep the leaves and flower petals down within the resin, but I enjoyed admiring my artwork once it's done.**

**Ms Chan Jia Ting**  
Chemical Engineering (Class of 2015)

## MUAY THAI & BOXING SIT Alumni Sports Network 29 January & 26 February 2022



Martial arts and fitness enthusiasts were not left out from these Zoom sessions. EVOLVE MMA led a Muay Thai and Boxing session in January and February respectively for SIT alumni to perfect their fighting stance.



## ROSE IN GLASS DOME WORKSHOP SIT Alumni Leisure Network 3 March 2022

Led by The Floral Petal, which specialises in paper blooms, the Rose in Glass Dome Workshop saw 54 alumni patiently crafting delicate paper roses to be displayed in a dome. Alumni pictured here proudly display their beautiful creations made out of Italian crepe paper.

## FINANCIAL LITERACY SERIES - UNDERSTANDING FEATURES AND RISKS OF MAJOR FINANCIAL PRODUCTS SIT Alumni Career Network 16 March 2022



SITizens learnt how to put their money to work by investing during a webinar where they learnt more about major financial products. Financial educator Mr Tan Swee Chiew from the Institute for Financial Literacy led 100 alumni through the session, where they also learned how to construct, monitor and rebalance their investment portfolios.

**This is the first time I'm attending a financial literacy workshop organised by SIT Alumni Career Network and I hope there can be another one in the future that will share insights on the current financial situation, information about taxes for individuals, businesses or about the Supplementary Retirement Scheme.**

**Mr Kester Leung**  
Chemical Engineering (Class of 2021)

## FIBRE ART CANVAS WORKSHOP SIT Alumni Leisure Network 7 April 2022



At a two-hour workshop with fibre artist Ms Autumn Brown, alumni learned how to combine a variety of textiles to create a tactile art piece. Armed with a kit containing materials such as yarn, felt, thread and silk ribbons, the participants were introduced to two fibre art techniques - latch hooking and locker hooking. By applying these techniques, they could create fluffy or fringe textures and combine them to create their art pieces.

**I enjoyed the exploration and play of different colours, textures and shapes to create an abstract outcome.**

**Ms Lim Pei Shan**  
Hospitality Business (Class of 2019)

# Spin to the Beat!

SITizens get an exhilarating ride to fitness at Spin Class, the first physical SIT Alumni Network event after a long hiatus

The SIT Alumni Networks are finally making a physical comeback, starting with the Alumni Sports Network's Spin Class, held on Thursday, 19 May 2022 at Absolute You @ Centrepont. What better way to bring alumni back to physical events than a high energy workout, cycling to adrenaline-pumping beats?

Gathered in a studio lit by neon lights, almost 30 participants were taken through a quick facilitation to orientate themselves with their bikes and get used to the motion of riding. What followed next was an intense 45-minute workout, incorporating choreography and full-body movements, accompanied by non-stop encouragement from their instructor.

Mechanical Design Engineering alumnus Mr Valent Tan enjoyed the motivational atmosphere during the class. "It was tiring but enjoyable as I went with friends," he said. "You're inclined to try your best to maintain the intensity and rhythm to the beat of the songs, compared to other sports where I'm more chill and depend on myself."

With the easing of safe-distancing measures, SIT Alumni can look forward to even more exclusive events to enjoy with their peers, coming up soon.



Their bikes may be stationary, but they certainly are not – participants keep their bodies moving as they groove and pedal to high-energy music.

Not just about cycling, spinning also incorporates weights to engage you in an effective fullbody workout.



Sweaty but happy SITizens after a fun session!



Mr Gaivin Tey (left) helping a beneficiary with her artwork on-site while another student volunteer guided the beneficiary via Zoom during the "stARTS with the heART" event organised by SIT students.

## Bringing Joy Through Service

SITizen Ambassadors Mr Gaivin Tey and Mr Darren Loo are making positive ripples in the community through volunteer work

Year 3 Computer Engineering undergraduate Mr Gaivin Tey has been volunteering since his secondary school days. When he enrolled in SIT in 2019, he wanted to continue serving, so he took part in an event organised by the SIT Community Service Club for residents of the St Andrew's Nursing Home in Taman Jurong.

"It was extremely memorable for me as I felt that I was able to make an impact on the elderly and bring them joy, even though they were

unable to go outside given the haze situation at that time," he said.

At SIT, Mr Tey went on to lead the Community Service Club as its president in 2020. His most memorable project was "stARTS with the heART". Held amid the COVID-19 outbreak, it was a collaboration with the SIT Silat Club and the Running Club to engage with beneficiaries from Thye Hua Kuan Nursing Home in Hougang. The two-part event included a compassion run by the student

volunteers, and a session where the volunteers guided the elderly to work on simple canvas paintings via Zoom, while also sharing their own artworks. Mr Tey and his team were on-site with tablets and laptops to ensure that the event ran smoothly, and to assist as needed. The week-long event saw the participation of more than 70 SIT student volunteers and 60 beneficiaries.

Mr Tey's enthusiasm for volunteering proved infectious. He recalled how a classmate, who



Mr Darren Loo in action at his constituency in Kembangan-Chai Chee, making sure residents receive their rations.

did not have any volunteering experience, was finally convinced to do so for an event called "With Grit Stay Fit", where they recorded simple exercises for the elderly to stay active and engaged while staying indoors during the pandemic. His efforts were recognised at the SIT Student Leader Appreciation Night 2021 where he received the SIT-DNA Award: Catalyst for Transformation.

Another SITizen who is making life a little better for others is Mr Darren Loo, a second-year Air Transport Management student. At the start of the "circuit breaker" in April 2020, he decided to volunteer after seeing a Facebook post made by Mr Tan Chuan-Jin, Speaker of Parliament and the Member of Parliament for Marine Parade GRC. Mr Loo is now a social team volunteer in Kembangan-Chai Chee, visiting residents and distributing food rations to those who need it.

He recalled how volunteers from SPD (Society for the Physically Disabled) supported his father who had had a stroke. They helped his father throughout his rehabilitation and after that, to adjust back to work. "I was in National Service at the time. Someone was there for my family when I really needed it. In return, I now dedicate my life back to helping others in the community," said Mr Loo, who is also volunteering at a soup kitchen and for a sustainability community project involving upcycling food wastage.

Both Mr Tey and Mr Loo are SITizen Ambassadors, a group of student leaders who exemplify the SIT-DNA. They serve as strong advocates of SIT to their peers and members of the public by sharing about the SIT experience.

**Sometimes what we do might seem to be the smallest thing, but it really means a lot to others and you really see how much you can make a difference from their smiles.**

*Mr Darren Loo*

# Meet Our 'Cover Girl'!

SIT Alumnus, former Ho Bee Scholar and the illustrator of our cover story this issue, Ms Lau En Bei shares how she's happy to witness the progress of SIT's new Punggol campus firsthand

Although she enjoyed it immensely, Ms Lau En Bei had never considered that she could pursue art as a career. It was only until she discovered a TV show called Home Décor Survivor when she made the decision to pursue Interior Design. "I felt like, hey, I actually really want to do that!" she said. "So with that mentality and my art background, I went to study it in polytechnic, also hoping to design my home in the future."

She went on to enrol in the Interior Design degree programme offered by the University of Glasgow at SIT. Ms Lau received the Ho Bee Scholarship in her very first year, for which she says she is very thankful to this day. "My parents actually retired when I started university, so I told myself that I need to be financially independent," she shares, adding: "Receiving the Ho Bee Scholarship let me fully enjoy my life as a student by allowing me to focus on my studies, and I got to join skate club as a CCA and gain a new skill as well as make a lot of friends."

As a Ho Bee Scholar, she made use of her design skills to create a physical model of the Ho Bee Auditorium, which will be part of SIT's new Punggol campus, and most recently adapted the facades of the auditorium and the Chua Thian Poh Discovery Hub into creative sketches for this issue of SITizen Bi-Annual. "I'm very happy that I get to be one of the first few to see the development of the Punggol campus firsthand," she said. "My new house will actually be right behind the new campus, so I'll definitely be visiting to see what it's like when it's ready."

Ms Lau, who graduated in 2020, is now an Interior Designer at PAI Studio Pte Ltd. She is working on residential projects, from conceptualisation to design development. She aims to brush up on her software skills and ultimately design her own home in the future.



En Bei's custom-made model of the Ho Bee Auditorium at the future Punggol campus, specially made to show her appreciation at the Ho Bee Naming Ceremony in 2019.



# Coming Up for

# SIT Alumni!



## Alumni Leisure Network: Bundle Dyeing Silk Scarf Workshop

**Date** Saturday, 13 August 2022

**Time** • 10.00am–11.30am  
• 12.30pm–2.00pm

**Venue** 22B Smith Street, Level 3, Singapore 058936

What is Bundle Dyeing? Learn all about natural dyeing and how you can create beautiful botanical colours by dyeing with plants at the Bundle Dyeing Silk Scarf Workshop. Through this workshop, you'll be able to create unique patterns and make a beautiful silk scarf, perfect for yourself or as a gift.



## Cheers IT's Thursday!

**Date** Thursday, 25 August 2022

**Time** 7.00pm–9.30pm

**Venue** To Be Confirmed

When was the last time you hung out with your fellow SITizens? Join us at Cheers IT's Thursday, a key social event for SIT Alumni to meet and network with SITizens from other programmes and clusters. Enjoy some good food and drinks as you catch up with old friends and make some new ones!



## New Alumni Welcome Party 2022

**Date** Friday, 28 October 2022

**Time** 7.00pm–11.00pm

**Venue** To Be Confirmed

Calling the Class of 2022! Are you ready to celebrate graduation? The New Alumni Welcome Party is making a comeback after a hiatus of 2 years, so it's time to party like there's no tomorrow! Join your fellow graduates for an amazing night out with food, free flow of drinks, and live music. Look out for an exclusive invitation coming to you soon!

## SIT ALUMNI MENTORING PROGRAMME Cycle 5 is here!



## SIT Alumni Mentoring Programme Cycle 5

**Registration** July – August 2022

**Launch** September 2022

Registration is now open for Cycle 5 of the SIT Alumni Mentoring Programme! Become an Alumni Mentor and inspire your juniors by sharing valuable experiences you have gained as a student and in the working world. Scan the QR code above or find out more at <https://alumni.singaporetech.edu.sg/alumni-mentoring-programme/>