Minister Chan's Immersive Experience at SIT

As a recent visit to SIT, Minister Chan Choon Sing and a delegation from MOE caught a glimpse of how immersive virtual reality technology can be used to improve learning outcomes, and how food production quality can be improved at SIT's Food Pilot Plant.

On 27 August 2023, the Singapore Institute of Technology (SIT) welcomed Minister Chan Choon Sing, Minister for Education and Minister-in-Charge of the Public Service, and his delegation. The visit was aimed at understanding the Institute’s initiatives in education and research.

The afternoonal programme began in the auditorium with a presentation and discussion on the key WhatsApp, Among Us game, and future plans of SIT.

Hereafter, the delegation was brought on a tour of the campus by the Academy's directors.

**Project Showcase: Sensibilization to Virtual Reality to Improve Chemical Engineering Learning Outcomes**

The Research Centre for Sensibilization Technologies for Chemical Engineering at the SIT's Food Pilot Plant presented a range of interactive workshops and demonstrations for the visitors.

**Project Showcase: Virtual Lab-based Evaluation of Dhoby Environment to Improve Food Safety**

Another interesting project that was featured is one which investigates the use of virtual reality to create immersive learning experiences in the Dhoby environment. The project seeks to create a virtual environment that mimics the actual Dhoby environment and allows students to explore and understand various factors that affect food safety.

Food Pilot Plant: Showcases

The Food Pilot Plant showcased various technologies and innovations that have been implemented to improve food production quality. The delegation was given a tour of the plant, highlighting the latest advancements in food processing and technology.

Following the site visit, the delegation engaged in a discussion with the SIT Food Pilot Plant team about the future potential of virtual reality and its applications in education and research.
SIT Graduates Continue to Enjoy Strong Employment Outcomes Amid COVID-19

95.0% of graduates employed six months after graduation

01 October 2021

Graduates from the Singapore Institute of Technology (SIT) continue to be in demand, with high overall employment and starting salaries. The 2020 Joint Autonomous University Graduate Employment Survey (JAU-GEES) revealed that 95.0% of SIT graduates in the labour force who completed their studies between October 2019 and September 2020 were employed. This is higher than the 89.7% overall employment figure in the previous year.

A total of 1,082 or 88.4% of the university’s cohort of 1,212 graduates from SIT and its three Overseas University (OU) partners across 34 degree programmes participated in SIT’s seventh annual JAU-GEES, which was conducted between 1 March and 14 May 2021.

SIT GEES 2020 Results at a Glance

<table>
<thead>
<tr>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Graduates</td>
<td>1,707</td>
<td>1,689</td>
</tr>
<tr>
<td>No. of Programmes</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>Placement Rate</td>
<td>95.2%</td>
<td>93.3%</td>
</tr>
<tr>
<td>Percentage of Graduates in the Labour Force who are Employed</td>
<td>92.5%</td>
<td>90.7%</td>
</tr>
<tr>
<td>Mean Gross Monthly Salary</td>
<td>$3,417</td>
<td>$3,498</td>
</tr>
<tr>
<td>Median Gross Monthly Salary</td>
<td>$3,300</td>
<td>$3,500</td>
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</tbody>
</table>

SIT saw 100% overall employment across several degree programmes, including Information and Communications Technology (Information Security), Game Design, Maritime Engineering, Aerospace Engineering, as well as the pioneer batch of graduates from three SIT-conferred degree programmes in Allied Health (Diagnostic Radiography, Occupational Therapy, and Radiation Therapy). The inaugural batch of graduates from the joint SIT-University of Glasgow Civil Engineering programme achieved 97.9% overall employment.

Higher Starting Salaries for Graduates

The mean gross monthly salary among fresh graduates employed in full-time permanent employment increased by $167 in 2020, compared to $3,417 in 2019. The median gross monthly salary among fresh graduates employed in full-time permanent employment remained the same at $3,300, compared to 2019.

Fresh graduates in the Computing Sciences programme earned the most among their 2020 graduate peers with a median gross monthly salary of $5,000, compared to $4,800 in 2019. This was followed by Information and Communications Technology (Information Security) graduates, who earned a median salary of $4,200, up from $4,000 the year before. Graduates with comparatively similar salaries were those from the Computer Science in Real-Time Interactive Simulation, Telecommunications (Intelligent Transportation Systems Engineering), Systems Engineering (Electromechanical Systems) and Sustainable Infrastructure Engineering (Land) programmes.

Professor Choo Chee Kiong, SIT President-designate, said, “It is encouraging that SIT graduates remain sought after by the industry and enjoy competitive salaries despite current economic conditions. This is because we nurture our graduates to be work-ready through our student learning and development initiatives.”

SIT has also focused on providing extension career guidance and complementary DEC courses, with the latter being an extension of the work-integrated component of SIT's degree programmes.

DWP Offers SIT Graduates a Head Start in Careers

42.6% of employed graduates received job offers from their DWP companies before graduation. Of these, 22.3% points accepted the offers.

The DWP is an integral feature of SIT’s degree programmes where students undertake up to 12 months of relevant work during their course of study. It provides students the opportunity to develop important work skills in their chosen field and prepares them for a seamless transition to employment. Since its inception in 2014, the DWP has expanded to cover 22 SIT and joint degree programmes, with over 12,328 students in the industry for their work attachments in Academic Year 2020.

Other than the DWP, SIT supports graduating students through its Centre for Career Readiness, which organizes Career Success Workshops, Placement Talks, Career Fairs and Career Coaching Sessions. Sharing sessions by alumni and industry partners also help to raise awareness of the current challenges in the workplace, the impact of COVID-19 and the importance of being open-minded in exploring career opportunities in adjacent industries. To support fresh graduates entering the workforce, SIT offers four free Continuing Education and Training (CET) modules to the 2020 cohort. Alumni can lever the $2,000 worth of CETlevel Learning Credit to apply for eligible CET courses in SIT.

On top of providing extension career guidance and complementary DEC courses, SIT also taps on its network of industry partners to curate suitable internship opportunities for graduates, such as the Sigma Industrial Training Programme (SIGIT). With a duration of up to 12 months, these internships equip young graduates with valuable industry experience and allow them to gain a firmer foothold in the job market when the economy recovers.

3 The JAU-GEES is conducted by the six Autonomous Universities: NUS, NTU, NUS, NUS, NUS and NTU. Every year to survey the employment status of graduates around six months after the completion of their degree. Due to different academic calendars, NUS, NTU, NUS and NTU conduct their surveys in November each year, while SIT and SIT conduct their surveys in February and March, respectively.

4 Details on SIT’s course-level results are available at https://www.nus.edu.sg/post-secondaries/overseas-autonomous-universities/SIT.

5 The figure includes SIT graduates who were enrolled in the Sigma Industrial Training Programme (SIGIT) Programmes.

6 Students in the labour force refer to those who are working or not working but actively looking and available for work.

7 Gross monthly salary comprises the basic salary, fixed allowances, overtime pay, commissions and other regular cash payments, before deduction of the employer’s CPF contributions and personal income tax. Employer’s CPF contributions, bonuses, stock options, other lump sum payments, and payments in kind are excluded.

8 Excludes Allied Health graduates who took in Clinical Practice Education.
Farming at Your Doorstep

An urban farming project by SIT that grows vegetables in unlikely spaces has been awarded funding from the Singapore Food Agency

01 October 2021

In the near future, you could very well be munching on vegetables harvested from the side-facades of HDB blocks or plots of land below overhead train tracks and bridges. This is thanks to a project by researchers from the Singapore Institute of Technology (SIT), which aims to develop a sustainable urban farming module that can be deployed at unused urban sites across Singapore.

The project was one of 12 which were, in total, awarded over $823 million in funding from the Singapore Food Agency under the grant call for research and development (R&D) in ‘Sustainable Urban Food Production’.

The grant call aims to develop the local agri-tech R&D ecosystem and sustainable urban food solutions to support Singapore’s ‘30 by 30’ goal for food security, and provide funding and support for innovative research projects that address challenges facing the tropical aquaculture and urban agriculture industries.

Maximising Crop Growth

Called the “Urban metabolic Farming-module” or UmFm, the project is a collaboration between SIT, Tohoku University, local urban farming company NetaTech, and Tampines Town Council.

The cross-cluster team behind the project comprises Assoc Prof Soh Chew Beng, Asst Prof Chien Szu-Cheng and Asst Prof An Hui (all from the Engineering cluster), Assoc Prof Ryan Tay (Chemical Engineering and Food Technology cluster), Asst Prof Donny Soh (Infocomm Technology cluster) and Asst Prof Yeh J-Ling (Health and Social Sciences cluster).

Before designing each module, an environmental assessment is conducted through simulation, which is used to study the air flow, as well as the irradiance (amount of light) in the growth structure. Each module has four critical features:

- Engineered solar film materials – which optimise natural sunlight utilisation (brightness and solar heat) to increase crop yield and achieve self-sufficiency in staple Asian greens.
- A cost-effective and sustainable UmFm unit – built for growth with minimal use of space and energy demands, as compared to indoor farming to enhance the utilisation of space.
- Customised nutrient recipe coupled with optimised irrigation – to better support the growth of crops and promote healthy growth.
- Artificial Intelligence – such as sensors, which test the humidity, pH and temperature to understand how they correlate to the growth stages of crops, to optimise the growth system in the whole crop life cycle.

Commercial and Community Benefits

The first version of a vertical high-tech farm has been set up by NetaTech on the side-facade of a HDB block in Tampines Eco Town. Other possible sites include terrace terrain and walkways at housing estates. The team is also testing an UmFm module in SIT@Dover at the terrace’s side-path. The UmFm units could be operated by commercial farmers, while bringing other benefits to the community.

"With this unit, we could bring farms closer to home," said Assoc Prof Soh, Programme Leader, Sustainable Infrastructure Engineering (Building Services), SIT. "It could create job opportunities for home-makers and retirees at close proximity to their home – meeting the food, economic security, and social needs of Singapore. The local crop produce will cut down the cost (involved in) storage and transportation, making it more economically viable for local residents," he said.
Passing the Virtual Baton: SITizens Run Together for a Good Cause

Lacing up their trainers, they push to clock 5km for The Ireland Funds Singapore’s Remote Global 5K event, all in support of the Special Olympics Singapore.

05 October 2021

Proud SITizens flaunting tankies as they complete The Ireland Funds Singapore Remote Global 5K.

On 18 September 2021, more than 200 participants – including students and staff of the Singapore Institute of Technology (SIT) – joined The Remote Global 5K, a virtual event hosted by The Ireland Funds Singapore.

The Remote Global 5K saw Ireland Funds chapters passing the virtual baton across different time zones, starting in Australia and Singapore, and on to Ireland and the UK, and then cities across the USA. This year, The Ireland Funds Singapore is partnering with and supporting Special Olympics Singapore, which provides year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities.

Participants could run, bike, swim or stroll at this year’s Global at a place and time of their choosing in the 2021 edition of the Remote Global 5K.

One of the participants, Mr Darren Loo, Year 2 Air Transport Management student and SITizen Ambassador, opted to run. He also walked in residential areas for some segments of his route to form the shape of “SIT” on the map to show his support.

He said, “Although we did not run physically together, it was enjoyable because it felt like a team event! We ran and updated one another about our progress. We even recorded a few entertaining segments of Irish dances and made a video collage. It was very meaningful as we all got together for a charitable cause and gave back to the community as SIT!”

“We were delighted to have such great support from SIT for our Global 5K event again this year and we especially enjoyed the SIT contingent’s video montage and very impressive Irish dance moves. We look forward to an in-person Global 5K next year and in the meantime, hope we can collaborate with SIT in March 2022 for our Sense of Ireland celebration,” said Ms Pamela Sprookjes, Executive Director, The Ireland Funds Singapore.

Said Dr Stanley Querk, Chairman, The Ireland Funds Singapore, “This is the third time The Ireland Funds Singapore is hosting the Global 5K, and the second time that it was run as a virtual event. I am very happy that the pandemic did not deter the participants from coming together remotely. I hope they had fun in the process!”

The Ireland Funds Singapore, which aims to further develop the long historical relationship between Singapore and Ireland, has made possible The Ireland Funds Singapore Overseas Immersion Programme (OIP) Grant at SIT. Dr Querk has also made possible the Tan Mui Eng Family Grant to support Nursing or Allied Health undergraduates, as well as the K M Querk Applied Research Grant to support research projects involving undergraduates participating and learning at SIT’s Centre of Health Sciences Research & Innovation.
Marbling with Resin

STIizens take another shot at experimenting with resin marbling at the Resin Marbled Coaster Workshop, the second resin art workshop organised by the STI Alumni Leisure Network.

05 October 2021

Participants were guided on different methods to create marbling and distinctive patterns – with eye-opening results!

As resin has been gaining popularity over the years, people have found a variety of different ways to express their creativity through resin art. Back in April, many STI Alumni had their first experience with this versatile material through the Resin Cheeseboard Workshop. On 6 – 9 September 2021, a total of 43 alumni tried marbled resin pour at the Resin Marbled Coaster Workshop, led by design studio Concrete Everything.

The participants were provided with two acrylic coasters, which they would be decorating with their resin mixture. To create their resin for pouring, they had to stir clear resin with hardener, then mix it with their preferred colours. A basic colour palette to follow consists of a base colour, a highlight colour, and two marbling colours.

Creativity knows no bounds – participants created layered patterns, unique colour combinations, and even one that looked like the surface of the moon!

Ms Tricia Klang, a Culinary Arts Management alumnus, enjoys experimenting with resin and has joined many external resin workshops. “I thoroughly enjoyed how engaging and interactive it was, and it wasn’t too challenging as the trainer guided us well,” she said. Mr Tan Yong He, who graduated from Computer Science & Game Design, especially enjoyed how the activity helped him to relax. He explained, “I am not a creative person, but I enjoy looking at the outcome of the objects I made. It’s quite fun and interesting to create something I can use.”

Another enjoyable handicrafts workshop, done and dusted!
Redesigning Business Models

Alumni learn about how business models are key in the way organisations create, deliver and capture value at the SIT Alumni Career Network's Entrepreneurship Series: Redesigning Business Models webinar

01 October 2021

SITizens get together online for the first webinar of the Entrepreneurship Series organised by the SIT Alumni Career Network.

On 15 September 2021, 48 SITizens tuned in to the webinar titled "Entrepreneurship Series: Redesigning Business Models" organised by SIT Alumni Career Network, in collaboration with SITLEARN Professional Development.

Assoc Prof Jawn Lim, Design & Specialised Businesses, SIT, the speaker of the event, took the participants through how business models are key in the way organisations create, deliver and capture value. The webinar also discussed how one can shift business models in the ever-changing economy to benefit one's business.

To kick off the session, Assoc Prof Lim introduced the participants to the nine basic building blocks in a business model, which comprises customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure.

It was a lively and engaging sharing session, with active participation from the alumni attendees from industries such as hospitality, construction, branding, F&B, IT and more.

Illustrating how business models change, Assoc Prof Lim showed how Netflix went through a value proposition shift, as it transformed its reach and the entertainment industry by shifting movie watching from low tech to high tech, from mail order DVDs to a streaming platform. In another example, Adobe made a finance driven shift when it changed its pricing model and transformed its creative software from Transactional (single licenses) to Recurring Revenue (subscription service).

He also walked through the seven different business model shifts with the participants:

- From Normal to New Normal
- From Products to Services
- From Shareholder to Stakeholder
- From Physical to Digital
- From Pipeline to Platform
- From Incremental to Exponential
- From Linear to Circular

Assoc Prof Lim sharing an example of how a brand has made a business model shift inspired by COVID-19 by strengthening its value proposition.

Communication Design graduate and Senior Brand strategist, Mr Slash Cheong signed up for the webinar, seeing that it was applicable to his line of work. He said he found it useful. "The part on the seven possible business model shifts was the most relevant to me as I am in the branding and consulting industry, so they are pivotal points to discuss with clients who are business owners," he said.