

# **Graduation Address by Mr Lim Kok Thai, Chief Executive Officer of Singapore Food Agency, at the Singapore Institute of Technology (SIT) Graduation Ceremony on 24 February 2021**

Professor John Thong  
Vice Provost, Singapore Institute of Technology

Parents, Graduands, Ladies, and Gentlemen,

It's my pleasure to join you at the SIT graduation ceremony this afternoon. Today, we celebrate the graduation of the second cohort from the Pharmaceutical Engineering and Food Technology programmes. This is a momentous occasion for the Class of 2020, and especially significant to SIT, being the first local university to resume physical graduation ceremonies following the Covid-19 outbreak.

2 SIT is unique among the autonomous Universities in Singapore. Its applied university education model focuses on integrating work and study, as well as building deep links with industry. Currently, SIT offers over 40 undergraduate and postgraduate degree programmes, some jointly with overseas universities. For example, the Bachelor of Food Technology, of which we have with us 48 graduands today, is jointly offered by SIT and the Massey University of New Zealand.

## **SIT's collaboration with the industry**

3 SIT's reputation in both food and pharma sectors is growing. Besides producing graduates that are highly sought after by companies in these industries, the university also contributes to innovation, professional development and standards, as well as, applied research.

4 In this area, SIT is launching a Food Technology Innovation Centre later this year to promote innovation and drive applied research in the local food industry. This will include supporting new product testing and encouraging collaboration among local food companies, as well as building a pipeline of food technologists.

5 SIT is also part of the Pharma Innovation Programme Singapore (PIPS) consortium led by A\*STAR to drive the transformation of the local pharmaceutical manufacturing industry. Backed by a \$34-million grant, the programme enables SIT to work with pharmaceutical giants such as GSK, MSD and Pfizer to build innovative practices and contribute to better quality products and value for patients.

6 In the setting of industry standards, SIT is lending its expertise towards the development of standards for urban farms, including benchmarks for resource use and waste generation indicators.

### **Grooming industry-ready individuals**

7 I am glad that SIT is grooming its students to be both technically competent and industry ready. A distinctive feature of SIT's degree programmes is the Integrated Work Study Programme, or IWSP in short. The IWSP allows students to integrate theory with practice and develop deep specialist skills in their chosen field. Students work closely with the industry on their capstone projects. This gives them the opportunity to work with industry partners and apply their knowledge to solve real-world problems. Real work undertaken through the IWSP will also enable students to understand the challenges faced in the current fast changing economy and develop skills in adaptability, creativity, and innovation, while adding value to the workplace. Such an education model not only equips students with strong technical competencies and the ability to quickly transform knowledge to skillsets, it also enables students to readily integrate into the workplace after graduation.

### **SIT graduands**

8 I will like to highlight two graduands who embody these traits. The first is Krithi Pushpanathan, a Pharmaceutical Engineering graduand. Since secondary school, Krithi developed a passion for science and health and took up SIT's Pharmaceutical Engineering programme after her A-levels. Since then, Krithi received many awards

for her outstanding academic results, including the SIT-DNA Award and AbbVie<sup>1</sup> Outstanding Student Award in Pharmaceutical Engineering.

9 Krithi also stood out for her non-academic pursuits. Since 2017, Krithi volunteered as an academic coach at Cheng San Family Service Centre to coach primary school children from vulnerable families.

10 Through her volunteer work, Krithi instinctively realised how she could use her skills to help the community while studying one her modules. Krithi picked up MATLAB (“MAT-LAB”), a programming language, which can be used to evaluate shortcomings in healthcare delivery for infectious diseases. Krithi is now a Research Engineer at SIT, using MATLAB to model the spread of Covid-19 in Singapore to predict future trends of infections. Her goal is to use the data to guide policies to improve public health.

11 The second graduand is Charlene Low. An accident in her family took a toll on her family’s financial situation. That however did not stop Charlene from excelling in her studies at SIT. In 2018 and 2019, Charlene was awarded the Kewalram Chanrai Group Scholarship for her outstanding academic results, good character and leadership skills.

12 Charlene is now a Food Technologist at Prima Limited’s R&D department, focussing on creating flour mix for both industrial and household purposes. Prior to this, Charlene did a 7-month Integrated Work Study Programme with Firmenich, a flavour and fragrance manufacturer, and gained a greater understanding of the chemicals that make up complex flavours, as well as the application of flavours to different food systems. Charlene did her final year project on the study of high shear behaviour of milk concentrate at Massey University in New Zealand. This pushed her to step out of her comfort zone, and taught her to be independent.

---

<sup>1</sup> The AbbVie Outstanding Student Award in Pharmaceutical Engineering is given to students for outstanding academic results, and who have demonstrated leadership qualities and significant contributions beyond academic studies to SIT or the community. The award is made possible by a gift from AbbVie Operations Singapore Pte Ltd

13 The employment figures for SIT graduates is testament of the industry's confidence in the graduates. Based on a preliminary employment survey conducted by SIT with the Class of 2020, among those who responded, 90% of PharmE graduates and 98% of Foodtech graduates are currently employed.

### **Future of farming**

14 Moving forward, we hope to see SIT graduates join the agri-tech food sector. The Singapore Food Agency (SFA) is building up Singapore's production capacity and capabilities to strengthen our food security. We are working with our local agri-food sector to achieve our '30 by 30' goal, which is to produce 30% of our nutritional needs locally by 2030. This is a multi-fold increase from less than 10% today. This is ambitious but achievable with agri-tech.

15 Singapore's farming scene has evolved. Farming is no longer just toiling under the sun or limited to land-based soil farming. With land and resource constraints, Singapore has to tap on technology to grow more with less, and sustainably at the same time.

16 Our farms are transforming to embrace new technologies and looking at new ways and places to produce food. Vegetable farms are shifting from manual single-layer outdoor cultivation, to multi-tiered, automated indoor farming. Some are even looking to grow in alternative spaces such as at the side of HDB blocks, or on top of multi-storey car parks. Fish farms of the future could move to deep sea or land-based multi-tier farms, where production can be intensified sustainably. Novel food is another area with significant growth potential. Imagine growing food in a lab thanks to advances in tissue engineering.

17 Given these developments, we are seeing more high-value jobs in Singapore's agri-food sector. We will need specialists and technicians such as agronomists, aquaculturists and feed nutritionists. In addition, we will need engineers with expertise in automation and robotics, as well as info-communications technologists with knowledge in the Internet of Things and data analytics.

18 Those working in novel food will need food science specialists to address food safety during production, as well as food flavourists for product development. In short, we require a workforce with varied skillsets.

19 Already, we are seeing this hiring trend in our local farms. Syafiq, an SIT infocomm graduate, works in Archisen, a local agri-tech company that helps set up high-tech indoor farms. Syafiq, a software engineer, creates applications that improve the efficiency of farm operations and ensures the produce goes from farm to shelf quickly and smoothly. Archisen also hires SIT students from different disciplines to work in food quality and agri-tech. These are just the start. By 2030, we expect about 4,700 jobs to be created and upskilled in the agri and aqua-tech food industry.

20 To fill these jobs, we need to develop a regular supply of trained manpower. SFA has been working with various Institutes of Higher Learning on programmes to equip students and adult job seekers with skillsets that will lead to careers in agriculture and aquaculture. We are also in talks with SIT to develop training programmes in Agri and Aqua Engineering. With these exciting developments, I hope to see SIT graduates make their mark in the agri-food sector and contribute towards enhancing Singapore's food security.

## **Conclusion**

21 I am confident that SIT's unique education model has equipped you with the necessary skills and aptitude to navigate the future of work. Graduands, now is your time to shine, and I congratulate all of you on your achievements and on graduating amidst the Covid-19 pandemic.

22 I would also like to acknowledge the contributions of those who have walked alongside you in your SIT journey – your family, friends, lecturers, and peers at SIT.

23 Well done, Class of 2020. Thank you.