

Industry

SIT has developed thriving and symbiotic partnerships with industry in formulating and delivering its education and research programmes. Industry involvement is evident and sustained in SIT's educational, applied research and innovation activities. The University also works closely with industry partners to support industry's growth, transform work processes, move up the innovation value chain, and develop manpower capabilities.

SIT's industry-focused learning and research efforts position us well to meet industry demands and the lifelong learning needs of the future workforce.

CHAMPIONING LIFELONG LEARNING

SINGAPORE'S FIRST COMPETENCY-BASED STACKABLE MICRO-CREDENTIALS PATHWAY

SIT has partnered with NCS, Singtel, Singapore Computer Society, and 3 polytechnics (Nanyang Polytechnic, Singapore Polytechnic and Temasek Polytechnic) to offer Singapore's first Competency-based Stackable Micro-credentials (CSM) degree pathway for in-employment learners.

The CSM degree pathway is piloted through the Bachelor of Science with Honours in Applied Computing programme and comprises micro-credentials, a workforce essentials component and a capstone project. The pathway allows in-employment learners to earn micro-credentials, or qualifications in specialisations such as cybersecurity, software engineering and network systems, to complete their degree. Separately, learners could also just subscribe to each micro-credential as a standalone, which would equip them with the necessary competencies to start pivoting to new job opportunities.

The micro-credentials will be delivered via a combination of asynchronous and synchronous modes, augmented by face-to-face sessions for practical and laboratory experiments, allowing learners the flexibility to personalise their learning journey while managing multiple commitments.

The competency-based education approach in the CSM degree pathway ensures learners acquire both knowledge and skills, as well as the competency to apply them at work, empowering them to stay relevant in their industries. The first intake in September 2023 comprises mainly in-employment learners from Singtel and NCS.



An MOU signing ceremony was held on 28 November 2022 between SIT and partners — NCS, Singtel, Singapore Computer Society, Nanyang Polytechnic, Singapore Polytechnic, and Temasek Polytechnic — to launch the CSM degree pathway.

ALIGNED WITH INDUSTRY NEEDS

SIT strives to develop relevant and timely courses and programmes to meet industry needs through its lifelong learning unit, **SITLEARN Professional Development**. In 2022, more than 4,000 CET training places were offered to upskill/reskill learners.

PIONEER BATCH: POSTGRADUATE DIPLOMA IN SONOGRAPHY

SIT is the first autonomous university to offer a Postgraduate Diploma in Sonography to meet the demand for skilled sonographers in allied health. Modules can be taken individually or be stacked towards a Postgraduate Certificate or Diploma. Since 2019, over 40 allied health professionals have embarked on this specialised programme. In November 2022, the pioneer batch of 5 learners graduated with a Postgraduate Diploma in Sonography.

INAUGURAL BATCH: POSTGRADUATE CERTIFICATE IN URBAN RAILWAY TECHNOLOGY

In collaboration with Singapore Rail Academy, SBS Transit, and SMRT Corporation, SIT launched the Postgraduate Certificate in Urban Railway Technology (PGCert URT) in 2021. Designed for engineering professionals in the local rail industry, the programme equips learners with specialised skills in the planning and management of railway assets. The inaugural batch of 11 learners completed the programme in December 2022, while the second batch of 15 learners commenced the programme in January 2023.

SKILLSFUTURE CAREER TRANSITION PROGRAMME (SCTP) IN DESIGN INNOVATION

In 2022, SIT launched the SkillsFuture Career Transition Programme (SCTP) in Design Innovation. The SCTP

supports mid-career individuals in gaining industry skills and expanding employment prospects through project opportunities and career support. The first cohort of 7 learners worked on real-life application projects with industry partner Purely Fragrances. They gained skills and knowledge on the key drivers of innovation and developed innovative solutions for new product launches.

ELECTRICAL SAFETY SYMPOSIUM 2023

SIT's maiden Electrical Safety Symposium held at SIT@ Dover on 4 January 2023 drew over 260 attendees. The event featured industry experts who shared best practices in preventing electrical-induced injuries and fire hazards. The full-day symposium featured speakers from the Energy Market Authority, National Fire and Emergency Preparedness Council, Ministry of Manpower, ON Engineers, The Institution of Engineering and Technology, Singapore Civil Defence Force, Singapore Battery Consortium, DEHN Asia Pacific, SJ Thames, Sunlight Electrical and SIT.

PARTNERSHIP WITH APPLIED MATERIALS TO SUPPORT FUTURE-READY WORKFORCE

Applied Materials South East Asia Pte. Ltd. and SIT signed an MOU to provide CET programmes to Applied Materials employees. The aim is to contribute to the manpower capability building of the local semiconductor industry and its ecosystem. The learning programmes are customised and offered through short courses and stackable postgraduate modules related to Industry 4.0 concepts, such as artificial intelligence, data engineering, the Internet of Things, machine learning and smart factory. To date, over 200 Applied Materials employees have participated in courses offered by SIT.



MOU signing between Applied Materials and SIT in July 2022. (Photo: Applied Materials South East Asia)

GROOMING WORK-READY TALENTS

SIT's Centre for Career Readiness (CCR) grooms students to be work-ready employees who contribute to their organisations from day one. It boosts students' employability through initiatives such as work attachments, career events and career mentorship programmes.

A WINDOW OF OPPORTUNITIES THROUGH INTEGRATED WORK STUDY PROGRAMME (IWSP)

The Integrated Work Study Programme (IWSP) is a hallmark feature of SIT's degree programmes, where

students undertake up to 12 months of work attachment relevant to their course of study. The longer duration allows students to apply what they have learned in real work situations. In AY2022, about 1,900 SIT students went for their IWSP with opportunities offered by more than 750 industry partners.



Thriving conversations between job seekers and participating companies at Career Nexus 2023.

CAREER NEXUS 2023: NETWORKING WITH PROSPECTIVE EMPLOYERS

Held on 1 February 2023 at the Sands Expo and Convention Centre, Career Nexus organised by CCR gathered about 2,000 students and representatives

from 205 companies, far exceeding the participation rate at the last physical event in 2020. The annual career fair is a platform for students to network with company representatives, explore IWSP options, and seek full-time employment opportunities.



T-Up EAGLES award winners with Ms Chan Lai Fung, Permanent Secretary (National Research and Development) and Chairman, A*STAR; Professor Chua Kee Chaing, SIT President; and company representatives. (Photo: A*STAR)

T-UP EAGLES AWARDS: RECOGNISING IWSP EXCELLENCE

SIT has been partnering with the Agency for Science, Technology and Research (A*STAR) to engage local enterprises to provide industry R&D IWSP opportunities for its students. The A*STAR-SIT Technology for Enterprise Capability Upgrading (T-Up)/IWSP collaboration enables local enterprises to build their in-house R&D capabilities with the researchers seconded from A*STAR, while the

A*STAR researchers will mentor and work with the IWSP students attached to the company.

In 2022, the newly-introduced T-Up Eagles Awards commended 4 SIT student innovators who have excelled in their work attachments at local enterprises under the T-Up/IWSP partnership. As of AY2022, the partnership has seen 16 completed T-Up/IWSP cases with the participation of 21 students from various degree programmes.



Mentors and mentees from the 6th run of the Industry Mentorship Programme at the IMP Appreciation Night.

INDUSTRY MENTORSHIP PROGRAMME (IMP)

SIT continues to organise the **Industry Mentorship Programme (IMP)** with Young NTUC to prepare students for their future careers. Through the programme, students

are paired with industry mentors for 5 months to receive industry-specific guidance, develop career paths, and broaden their perspectives on career opportunities. Since its inception in 2018, the IMP successfully completed its 6th run in June 2023, and the programme benefitted close to 500 students from 20 degree programmes.

FORGING STRATEGIC COLLABORATIONS WITH INDUSTRY

Robust engagement with industry through collaborations is pivotal in exchanging knowledge, deepening applied learning and catalysing innovations. In AY2022, SIT forged several key MOUs and partnerships with the industry in various areas.



Key representatives at the MOU signing ceremony to collaborate on the WSDeg pathway.

NURTURING FINTECH TALENTS

In November 2022, SIT inked 7 MOUs with 6 financial institutions and an IT service provider at the Singapore Fintech Festival to jointly nurture fintech talents. The partners are AIA Singapore, DBS Bank, Oversea-Chinese Banking Corporation (OCBC), Prudential Singapore, Standard Chartered Bank, United Overseas Bank (UOB) and Infosys.

This partnership signifies the commitment to jointly nurture talents in the Applied Computing (Fintech

specialisation) degree programme. Through the MOU, the industry partners will participate in the co-development of the degree programme and provide relevant work attachments and learning opportunities in the SkillsFuture Work-Study Degree (WSDeg) pathway under the Term-In Term-Out (TITO) model. SIT students and faculty can also participate in Fintech projects with industry partners to deliver integrated solutions that address real-world business challenges. A total of 14 students were awarded placements in the WSDeg pathway in AY2022.



The SingHealth-SIT MOU signifies a multi-faceted collaboration to co-develop education and research programmes. (Photo: SingHealth)

DRIVING HEALTHCARE INNOVATION

In September 2022, SingHealth and SIT extended their partnership to co-develop education programmes and collaborate on healthcare research till 2026. Both parties will focus on solutions to improve healthcare operations and processes for early diagnosis and intervention, and to bring healthcare services from the hospitals closer to home. The partnership will also look at developing a Living

Lab in the Punggol and Sengkang estates, leveraging SingHealth’s healthcare facilities to provide an authentic and hands-on experience for SIT students. Another area is the experimentation and co-development of new healthcare innovations. There will be opportunities for SIT students and academic staff to work with SingHealth innovators on tackling real-world healthcare challenges through applied research and innovation.



The partnership with SMRT saw the set-up of the Transport Living Lab, which will provide mutual benefits for both organisations. (Photo: SMRT Corporation)

STRENGTHENING R&D EFFORTS IN LAND TRANSPORT

The SMRT-SIT Transport Living Lab (TLL) was established in November 2022 to co-create land transport solutions to address SMRT’s operational problems. SIT will be an extension of SMRT’s

engineering arm, while SMRT offers its infrastructure and facilities to SIT academic staff and students for applied learning and research. The collaboration will also explore applied research opportunities and staff exchange initiatives, thereby strengthening the talent pipeline for SMRT and the land transportation industry, and upskilling the SMRT workforce.



An MOU signing ceremony was held in Singapore, attended by key representatives from ENGIE and SIT. (Photo: ENGIE)

DEVELOPING EXCELLENCE IN DISTRICT COOLING

Global energy and services group ENGIE and SIT inked an MOU in July 2022 to jointly develop a district cooling centre of excellence in Singapore. The ENGIE-SIT District Cooling Centre of Excellence will catalyse innovation in cooling solutions across the Asia-Pacific. The partnership

includes joint development and funding of applied research, as well as knowledge exchange between ENGIE Southeast Asia, ENGIE Lab Singapore and SIT. It also covers work attachment and commercial district cooling system (DCS) development opportunities for SIT students. ENGIE is currently building a DCS plant at SIT's Punggol Campus.



The collaboration between DNV and SIT aims to promote maritime decarbonisation and digitalisation. (Photo: DNV)

A BOOST TO SINGAPORE'S MARITIME ECOSYSTEM

Leading classification society DNV and SIT signed a 3-year MOU in September 2022 to progress net-zero ambitions in Singapore's maritime sector. Both parties will focus on advancing zero-emission and autonomous ships; shore remote control and simulation centres; shore charging and future fuel bunkering infrastructure.

The collaboration combines SIT's applied learning pedagogy and DNV's Simulation Trust Centre to conduct lessons on optimising ship system design for hydrodynamics, energy, emissions and safety management. Students will have opportunities to work on final-year projects in maritime technology applications, undertake IWSP at DNV, and co-organise student competitions.