

# IMPACTING INDUSTRY

We forge partnerships with industry leaders who identify critical challenges that drive our curriculum and translational research agenda. By continuously deepening these collaborations, we scale our applied research, fuel innovation, and develop the skilled workforce that propels Singapore's economy forward.



Industry partners signalling their commitment to developing future-ready tech talent, fostering co-innovation and test-bedding, and driving entrepreneurship.

Photo: JTC

## » Partnerships

Over 30 Memoranda of Understanding (MOU) were signed:

- Encompassing a wide range of collaboration areas including applied research and education, co-development of modules for PET and CET, IWSP and academic exchanges.
- Notable MOU signings include:



SIT Photo: Keng Photography/Tan Eng Keng

### Singapore Army

To enhance the engineering skills and expertise of the Singapore Army servicemen and women, this collaboration identifies the Army's engineering training needs and aligns them with relevant SIT courses, which include micro-credentials, competency-based stackable degrees and postgraduate certification.



Photo: A\*STAR

### BioPIPS

BioPIPS or the Biologics Pharma Innovation Programme Singapore aims to strengthen local biomanufacturing capabilities and transform Singapore's biologics manufacturing facilities into agile factories of the future. Led by A\*STAR and supported by the Singapore Economic Development Board, it works through a consortium model consisting of leading biopharma companies and Singapore's public sector R&D agencies and universities.



SIT Photo: Keng Photography/Tan Eng Keng

### NVIDIA

SIT has partnered with NVIDIA to establish the SIT Centre for AI. The Centre aims to bolster AI adoption across industries and develop a talent pipeline to support Singapore's goal of tripling the number of AI practitioners within the next five years. It is dedicated to assisting industries with the customisation and refinement of foundational and generative AI models, as well as fostering the development of cutting-edge AI applications tailored to specific needs.

## FOODBOWL, SEAFast and SIFT

Under FoodPlant, a subsidiary of SIT, a partnership has been established with FOODBOWL, SEAFast, and SIFT, leading food innovation facilities from New Zealand, Indonesia, and Australia respectively. The dynamic multi-project collaboration aims to build capabilities and accelerate commercial outcomes in food innovation, manufacturing and network partnering.



Photo: A/Prof Lim Bee Kim

## >> Living Labs

We work with our partners to solve their operational challenges, catalyse research collaborations with our academic staff, and create authentic learning experiences for our students through Living Labs.

- Two off-campus Living Labs were operationalised:

### Transport: SMRT

- For SIT students and academic staff to co-create land transport solutions to address SMRT's real-world challenges.
- Smart Bus Captain Rostering: A Final-Year-Project that involved the development of an algorithm/macro to automate bus rostering schedules with the objective of distributing bus captains' driving hours for overall productivity without compromising on safety. An automated user interface was created for quick and efficient management of the rostering process.

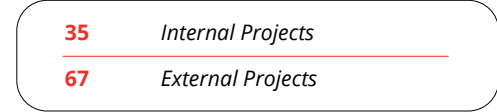
### Healthcare: SingHealth

- To build innovation capabilities and next-generation talent in the healthcare sector, contributing to national healthcare initiatives such as Healthier SG.
- Launched Master of Health Sciences with industry-focused specialisations and Integrated BSN-MSN programme to train specialist nurses.
- Scoped applied research projects that included capabilities from Business Communications and Design, Engineering and Infocomm Technology clusters to add value to innovative healthcare solutions.
- Developed CET courses relevant to healthcare operations for Sengkang General Hospital, with opportunities to co-develop specific courses for SingHealth.

## >> Applied Research

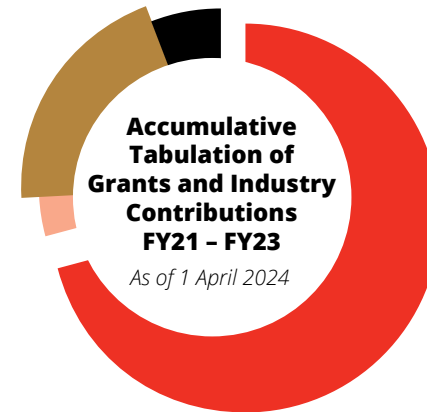
At SIT, we continue to push the boundaries of education and research through forward-thinking initiatives. We focus on solving real-world problems and innovating to drive economic growth.

- Secured close to S\$33 million in external grants and industry cash contributions.
- Applied Research Projects\*:



\*As of 31 March 2024

- Worked with 292 companies and organisations on applied research projects.



**6%**  
**INTERNAL GRANT:**  
**\$6.91M**

FY21 - \$1.33M  
FY22 - \$1.77M  
FY23 - \$3.81M

**69%**  
**EXTERNAL GRANT:**  
**\$81.83M**

FY21 - \$43.19M  
FY22 - \$8.72M  
FY23 - \$30.1M

**5%**  
**INDUSTRY CONTRIBUTION (CASH):**  
**\$6.22M**

FY21 - \$0.74M  
FY22 - \$1.59M  
FY23 - \$3.7M

**20%**  
**INDUSTRY CONTRIBUTION (IN-KIND):**  
**\$23.02M**

FY21 - \$13.54M  
FY22 - \$3.78M  
FY23 - \$5.96M



## » CTIL Project Highlight – Carbon Negative Steel Slag

Currently, most pavements are designed to prevent water infiltration, leading to increased runoff and accumulation, which often results in urban flooding. A viable solution to this problem is the use of Permeable Concrete, a porous material that reduces water runoff and helps recharge groundwater aquifers. This project aims to develop an environmentally beneficial and ecologically functional carbon-negative concrete using steel slag – a by-product of iron and steel production – to create Steel Slag Permeable Concrete.



## » EDGE Project Highlight – Vehicle-to-Grid (V2G) Test-bed

A consortium led by STRIDES will develop and test Singapore's largest V2G (Vehicle-to-Grid) technology with a grant awarded by the Energy Market Authority (EMA) and SIT under the EMA-SIT Exploiting Distributed Generation (EDGE) programme. The project will involve various V2G-enabled electric vehicle (EV) chargers and will allow EVs to interact with the power grid, potentially feeding electricity back into the grid during peak demand periods. It aims to evaluate the technical and economic feasibility of V2G technology in Singapore's context.



## » FoodPlant Project Highlight – HerbY-Cheese

FoodPlant, in collaboration with Agrocorp International (Agrocorp), has launched HerbY-Cheese, Singapore's first plant-based, nut-free cheese range. As part of this collaboration, Agrocorp's food scientists developed the product in SIT's food labs and received support in manufacturing prototypes at a pilot scale, paving the way for the successful commercialisation of HerbY-Cheese, which includes dairy-free alternatives to cheddar, mozzarella, and parmesan.



*Launch of Herb-Y-Cheese at SIT@Dover*

*SIT Photo: Keng Photography/Tan Eng Keng*