

Enhance Abilities through AI Innovations

Speaker

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AI is expanding its reach and capabilities

THE STRAITS TIMES

TECH

UPDATED DEC 21, 2024, 04:30 PM ▾

OpenAI unveils artificial intelligence that can ‘reason’ through maths and science problems



SAN FRANCISCO – OpenAI on Dec 20 unveiled a new artificial intelligence (AI) system, OpenAI o3, that is designed to “reason” through problems involving maths, science and computer programming.

The company said the system, which it is currently sharing only with safety and security testers, outperformed the industry’s leading AI technologies on standardised benchmark tests that rate skills in maths, science, coding and logic.

The new system is a successor to o1, the reasoning system the company introduced in 2024. OpenAI o3 was more accurate than o1 by more than 20 per cent in a series of common programming tasks, the company said, and it even outperformed its chief scientist Jakub Pachocki on a competitive programming test.

“This model is incredible at programming,” said OpenAI chief executive Sam Altman during an online presentation to reveal the new system. He added that at least one OpenAI programmer could still beat the system on this test.

www.straitstimes.com/tech/tech-news/openai-unveils-artificial-intelligence-that-can-reason-through-math-and-science-problems

What AI can do

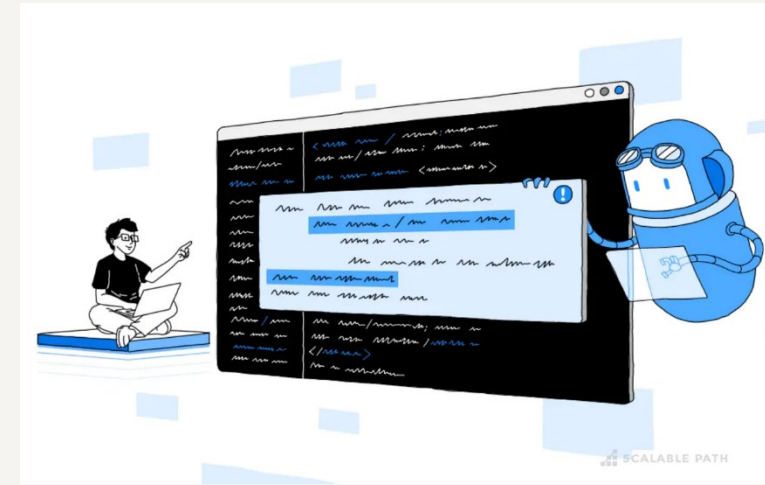
What AI cannot do?



www.business-standard.com/india-news/drone-tech-in-agriculture-set-to-boost-rural-economy-in-uttar-pradesh-123081800896_1.html



www.forbes.com/sites/bernardmarr/2020/07/17/5-ways-self-driving-cars-could-make-our-world-and-our-lives-better/



www.scalablepath.com/full-stack/ai-pair-programming-github-copilot-review

Can AI operate by itself?

What have we imagined over the years?

- Accountants would have been replaced by AI.
- Drivers would have been replaced by AI.
- Executive assistants would have been replaced.

And now,

- Programmers would have been replaced.



Why?

Human Intelligence v.s. Artificial Intelligence

Human

- Complex tasks

A.I.

- Well-defined tasks

When a person **discovers** that a button has fallen off, they will look for a **similar** button, **search** for a **needle** and **thread**, **thread** the needle, and then **sew** the new button onto the cuff in a specific way.

Human Intelligence v.s. Artificial Intelligence

Human's abilities and AI's abilities enhance each other

But A.I. is progressing with

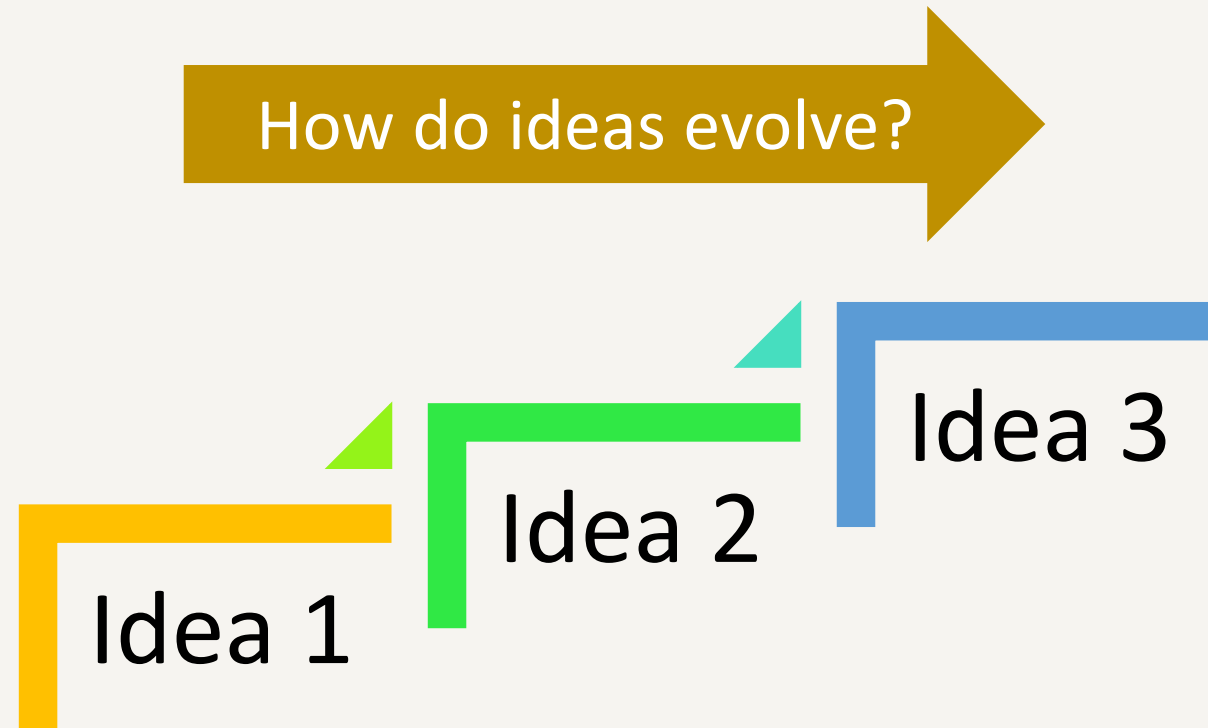
1. Well-defined procedures
2. Well-defined labels
3. Well-defined tasks
4. Well-define ???

Human

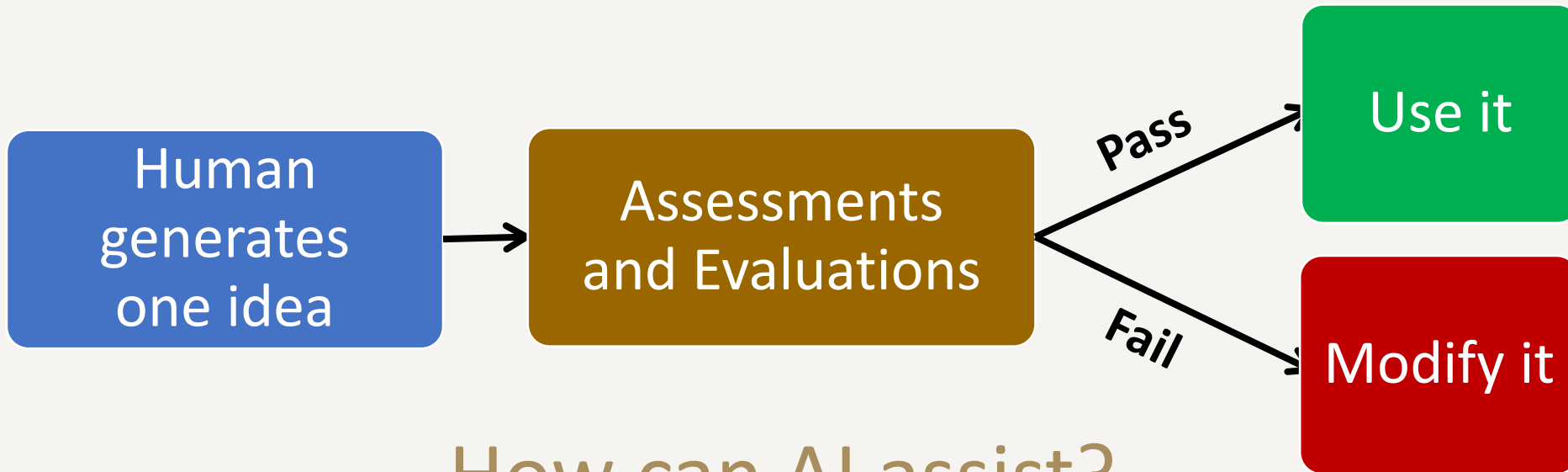
- Ability to handle uncertainties
- Ability to handle unforeseen events
- Ability to empathize
- Ability to create – creativity

What are innovations?

1. Creativity is about idea generation.
2. Innovation is about putting those ideas into practice to create something new and valuable.



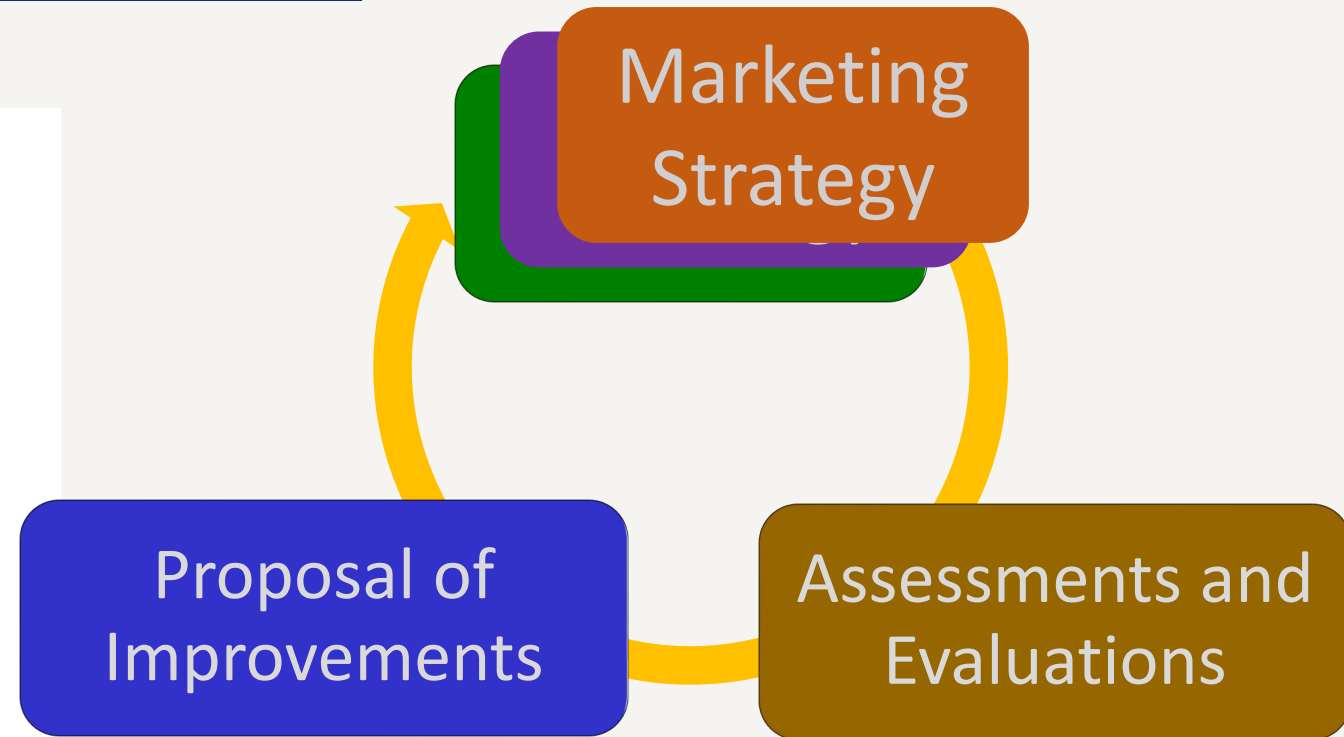
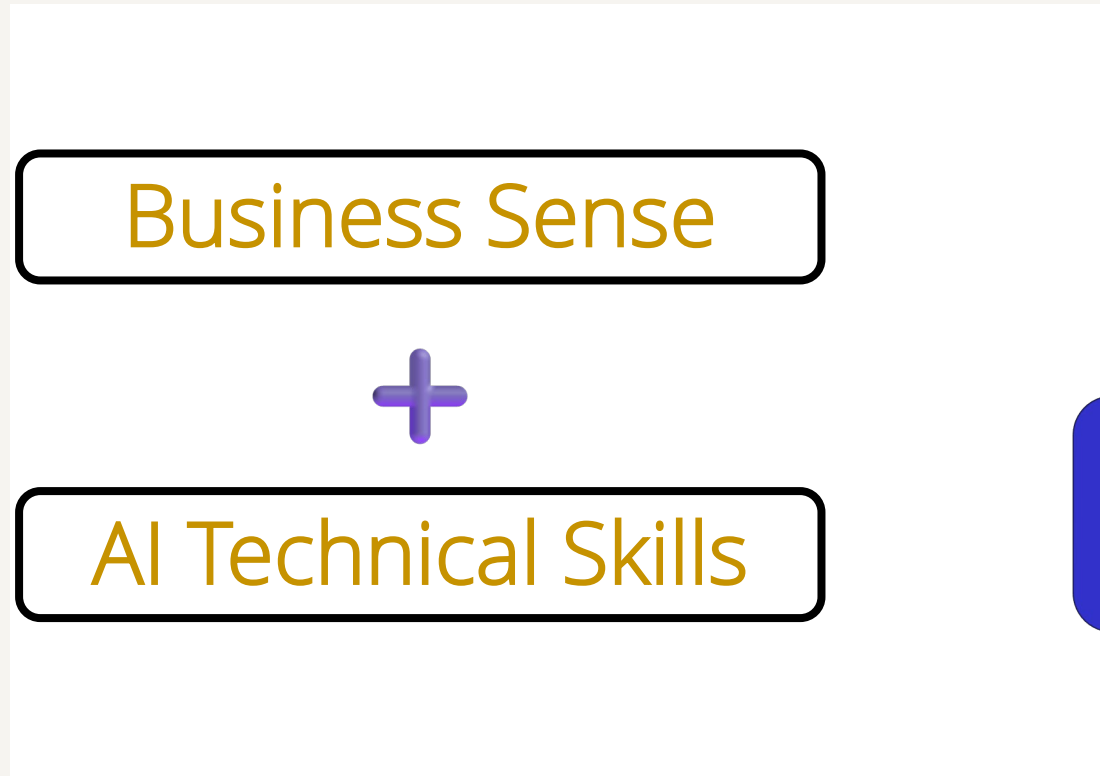
What are innovations?



How can AI assist?

-- Let AI do the evaluation

AI-assisted Innovations



Master of IT in Business (MITB)

Graduate Programmes Office
School of Computing and Information Systems
Singapore Management University

Scan these for



MITB
brochure



MITB key
application info



Singapore Management University (SMU)



School of
**Computing and
Information Systems**



Established in 2000, SMU's mission is to generate leading-edge research with global impact and produce broad-based, creative and entrepreneurial leaders for the knowledge-based economy.

6+2

Schools & Colleges

42

Degree Programmes

>430

Full-time faculty

>10,000

UG Students

>3,200

PGP + PGR Students

>44,000

Alumni



Global
recognition



Interactive
Pedagogy



Innovative
Curriculum



Networking and Career
Opportunities



City
Campus



Achieve a truly enriching student experience with our interactive pedagogy



Outstanding mix of faculty

who are world-class professors and industry practitioners/leaders



Seminar-style classrooms

where interaction and exchange of ideas know no bounds



Gain multiple perspectives from
open discussions with both faculty, industry leaders and peers



Global
recognition



Interactive
Pedagogy



Innovative
Curriculum



Networking and Career
Opportunities



City
Campus

A GLOBAL CITY in a CAMPUS

In the heart of the
CBD

Surrounded by
MUSEUMS,
THEATRES &
GALLERIES

Connected by
4 MRT
STATIONS

SINGAPORE'S only city
campus and MOST
CONNECTED UNIVERSITY



MITB's Objective

MITB programme aims to **train next generation ICT talents at the intersection of IT and Business** who are able to make better decisions, create value and develop a sustained competitive advantage **using data science and analytics techniques; build and use AI tools** and implement adaptive closed loop solutions; combine merits of **financial technology knowledge and analytics skills** and utilize the blend of ICT knowledge and skills to **strategise and execute digital transformation** successfully for a complex organisation in a rapidly changing environment.



Financial Technology
& Analytics



Analytics



Artificial
Intelligence



Digital
Transformation

Expand your knowledge by

Leveraging our reputation in Business Analytics

QS Business Masters Ranking: Business Analytics

- MITB is highly ranked in Asia and globally for 7 consecutive years



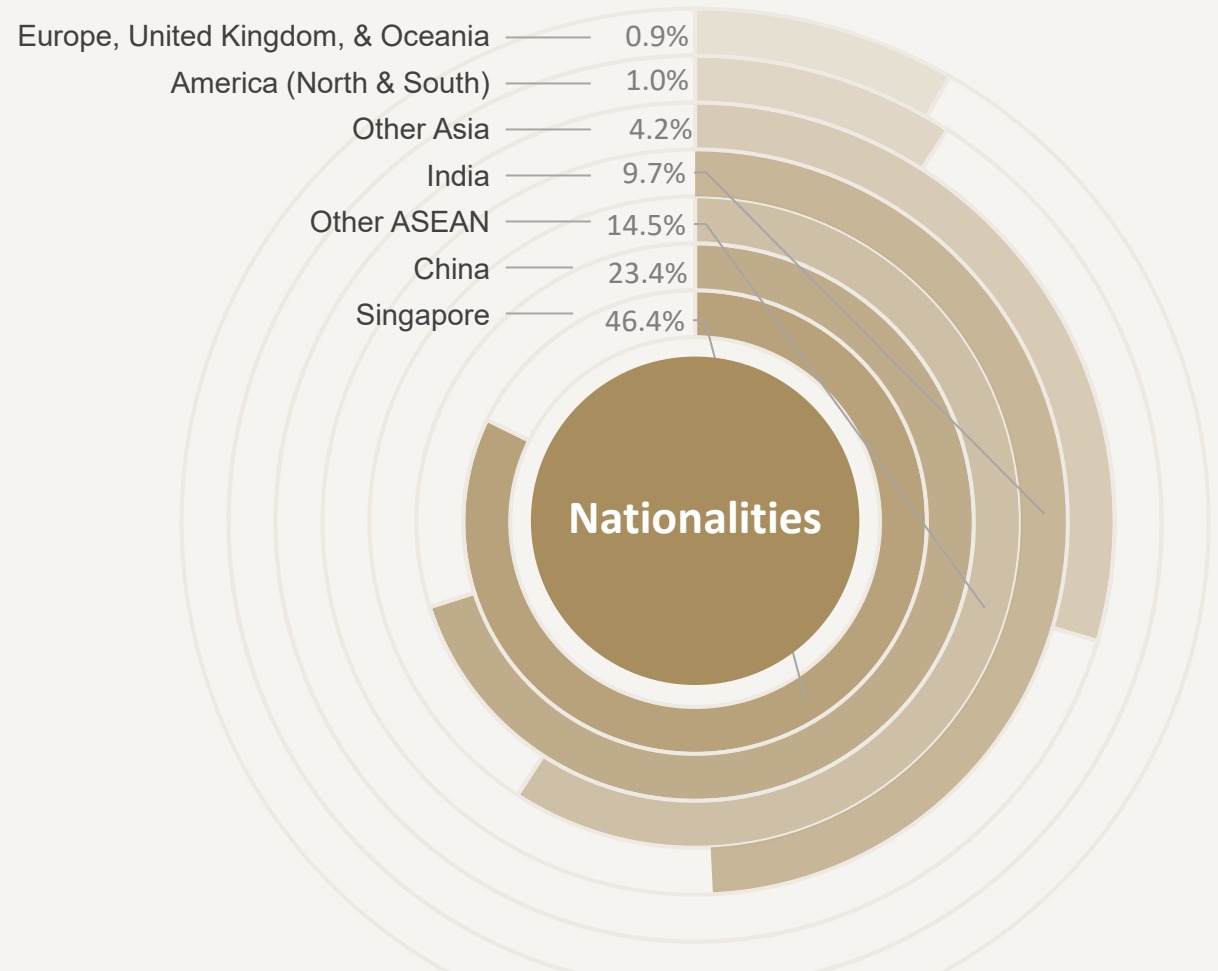
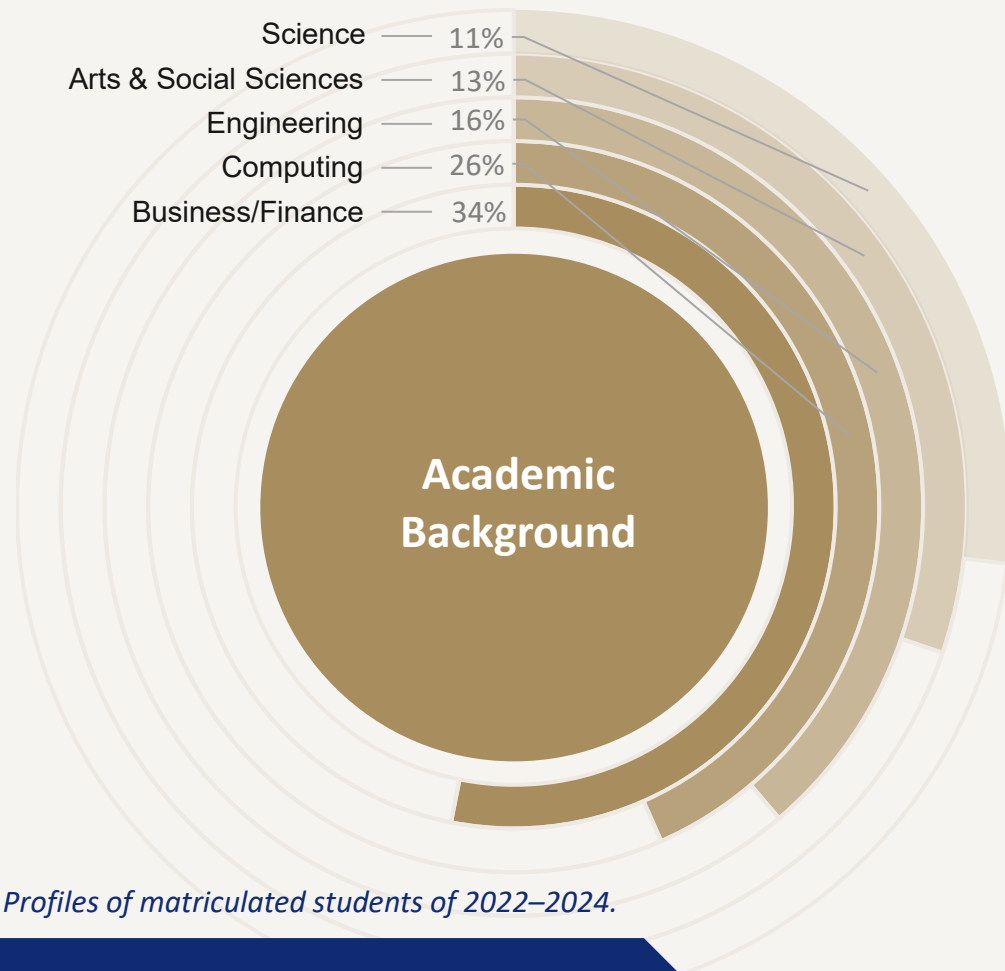
MASTER OF IT IN BUSINESS

Top 2 in Asia 2025

QS Master's in Business Analytics

Be a part of

A diverse community that can broaden your horizons



Graduation Requirements

Course	Course unit (CU)
Postgraduate Professional Development Course (4 workshop topics)	1
Programme Core: <ul style="list-style-type: none">• Spreadsheet Modelling for Decision Making• Statistical Thinking for Data Science• Computational Thinking with Python	3
Track Core	4
Track Electives	3
Open Electives – Choose any 4 CUs from the following*: <ul style="list-style-type: none">• Internship or Capstone Project (2 CUs)• Courses from any series in the MITB curriculum• Courses from other SMU Master's programmes (up to 2 CUs)	4
Total	15

**You are strongly encouraged to take up an immersive component (e.g., internship, capstone project, postgraduate exchange or SMU-X course).*



*New courses

Equivalent to 2 CUs

Internship

- Available for full-time students only
- 6 months duration
- Supervised by Company Sponsor

Capstone Project

- Available for both full-time and part-time students
- Minimum 182 work-hours commitment
- Supervised by SMU faculty; may be supervised by Company Sponsor where applicable

THE MITB CURRICULUM

The MITB curriculum has its courses classified into the following series:

FINANCIAL TECHNOLOGY (FINTECH)	<ul style="list-style-type: none"> Digital Banking & Trends Fintech Innovations & Startups* Corporate & Consumer Financial Technology Tokenised Assets & NFTs (0.5 CU) 	<ul style="list-style-type: none"> Data Science in Financial Services* RiskTech & RegTech Financial Markets Systems & Technology 	<ul style="list-style-type: none"> Digital Payments & Innovations Quantum Computing in Financial Services Digitalised Currencies & CBDCs (0.5 CU)
ANALYTICS TECHNOLOGY & APPLICATIONS (ANALYTICS)	<ul style="list-style-type: none"> Data Management Big Data: Tools & Techniques Social Analytics & Applications Customer Analytics & Applications (SMU-X) Generative AI with Large Language Models* 	<ul style="list-style-type: none"> Data Analytics Lab Data Science for Business* Visual Analytics & Applications Query Processing & Optimisation Applied Healthcare Analytics (0.5 CU) 	<ul style="list-style-type: none"> Text Analytics & Applications Applied Machine Learning* Geospatial Analytics & Applications Operations Analytics & Applications Prompt Engineering for LLMs (0.5 CU)
ARTIFICIAL INTELLIGENCE & APPLICATIONS (AI)	<ul style="list-style-type: none"> Algorithm Design & Implementation Deep Learning for Visual Recognition** Natural Language Processing for Smart Assistants* Recommender Systems* Prompt Engineering for LLMs (0.5 CU) 	<ul style="list-style-type: none"> AI & Uncertainty Reasoning* Query Processing & Optimisation AI Planning & Decision Making** Generative AI with Large Language Models* Multi-Agent Systems* 	<ul style="list-style-type: none"> Applied Machine Learning* Machine Learning Engineering** AI System Evaluation** Introduction to Reinforcement Learning* AI Translational Research Seminar* (Without Credit)
DIGITAL TRANSFORMATION (DT)	<ul style="list-style-type: none"> Digital Transformation Strategy (SMU-X) (digital) Product Management Digital Enterprise Architecture Global Sourcing of Technology & Processes 	<ul style="list-style-type: none"> Digital Organisation & Change Management Experimental Learning & Design Thinking Business Applications of Digital Technology IT Project & Vendor Management 	<ul style="list-style-type: none"> Agile & DevSecOps Digital Governance & Risk Management Digitalisation and Process Innovation Digital Technologies and Sustainability (0.5 CU)
Courses in the Tech and Practicum series are open to students in all tracks			
INFORMATION TECHNOLOGY MANAGEMENT (TECH)	<ul style="list-style-type: none"> Cybersecurity Technology & Applications Global Sourcing of Technology & Processes Modern Software Solution Development Blockchain Technology 	<ul style="list-style-type: none"> Spreadsheet Modelling for Decision Making IoT: Technology & Applications IT Project & Vendor Management Web3 Fundamentals 	<ul style="list-style-type: none"> Business Applications of Digital Technology Computational Thinking with Python Statistical Thinking for Data Science Low Code Application Development
PRACTICUM	<ul style="list-style-type: none"> Internship (2 CUs) 	<ul style="list-style-type: none"> Capstone Project (2 CUs) 	



**MITB
Brochure**

Open courses for cross-enrolment

School	Courses for cross-enrolment	
School of Accountancy	<ul style="list-style-type: none"> • Data Governance and Quality • Managing for Value Creation 	
Lee Kong Chian School of Business	<ul style="list-style-type: none"> • Business Acceleration and Growth Strategy • Doing Business in Asia • Finance • Negotiations in an HR Context 	<ul style="list-style-type: none"> • Strategic Communication Management • Strategic Management • Sustainable Finance • Sustainable Impact • Sustainable Operations
School of Economics	<ul style="list-style-type: none"> • Behavioural Economics • Data Sampling • Money, Banking and International Finance 	
Yong Pung How School of Law	<ul style="list-style-type: none"> • AI, Law and Ethics • Business Law • Compliance and Risk Management 	<ul style="list-style-type: none"> • Essential Technology for Lawyers • Fintech Regulation • Law of Mergers and Acquisitions • Trade Regulation in a Global Age

Note: These courses count towards open electives. Course offerings are subject to change. Beyond this list, special approvals must be sought.

Cross-enrolment into SCIS PhD courses

Course Title			
Information Security	Software Mining and Analysis #	Learning and Planning in Intelligent Systems	Mobile and Distributed Systems
Systems Security #+	Computational Interaction	Optimisation and Computing	

This course is offered in alternate years.

+ Mutually exclusive with MITB's Cybersecurity Technology

Take advantage of our

Overseas programmes that enhance your learning experience



Aalto University

Aalto University



Bocconi University

**Erasmus
University
Rotterdam**



Erasmus University



HITOTSUBASHI
UNIVERSITY

Hitotsubashi University



**The Hong Kong University of
Science and Technology**



IE University



National Taipei University



Shanghai Jiao Tong University

Exchanges Available

- Summer Programme Exchange (2-3 weeks)
- Short Term Exchange (7-8 weeks)
- Full Term Exchange (up to 12 weeks)



SMU PGPP Overseas Study Mission
(Indonesia, Thailand, Vietnam)

Get hands on experience by

Completing an internship in diverse sectors

Technology



Government & Public Sector



FMCG



Media



Banking & Financial Services



E-Commerce



Electronics, IT & Manufacturing



Logistics & Transportation



Professional Services



Automotive



Energy



Healthcare



Telecommunications



and many more...

Get ready for the

Boundless opportunities open to you after graduation

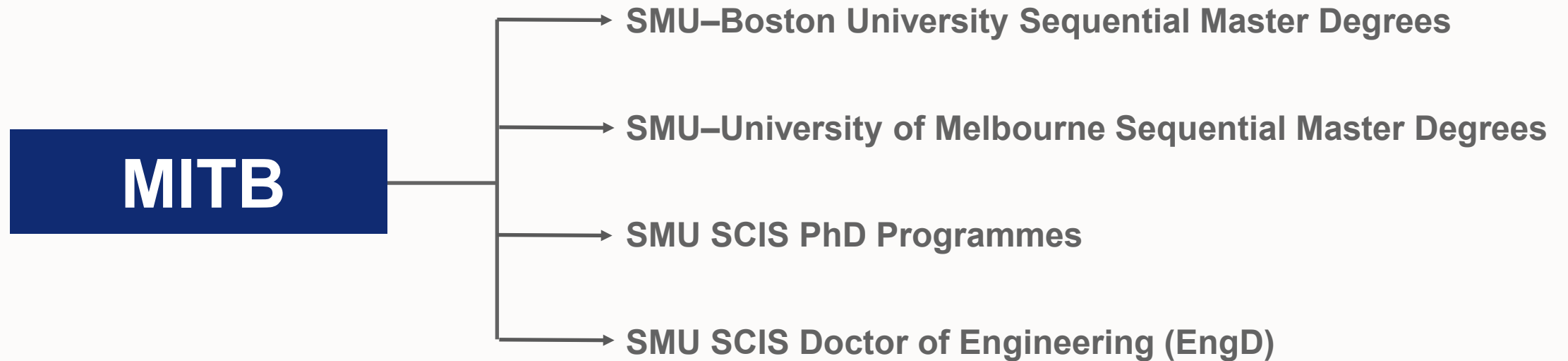


and many more...

Take it a step further and

Maximise your education possibilities with us

Various pathways to further your studies:



Get the support you need

Postgraduate Career Services



1-on-1 Career Coaching
by Certified Career
Coaches

Interview Skills &
Digital Profiles

Career Workshops

Networking Skills &
Personal Branding

Employer Networking
Sessions

Industry Talks &
Career Talks

Internships &
Job Opportunities

International Career
Opportunities

Supporting MITB students and alumni up to 3 years upon graduation



Employment outcomes of our graduates (Class of 2024)

High MITB Employability

91% students secured full-time employment within 6 months after graduation*

**Graduation employment survey for full-time students*

Salaries of our graduates (class of 2024)

	AI track	AT track	FTA track	DT track
Mean	S\$97,433	S\$76,340	S\$69,941	S\$86,667
Median	S\$86,000	S\$70,000	S\$66,000	S\$90,000
Max	S\$140,000	S\$215,000	S\$143,000	S\$90,000
Min	S\$72,600	S\$42,000	S\$45,600	S\$80,000

Note: The salary per annum is calculated based on the annual base salary including a guaranteed bonus, in local currency.

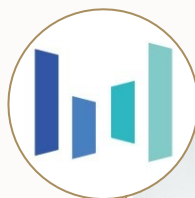
Take charge and

Demonstrate your competitive edge – Our Taiwanese graduates are hired in various industries

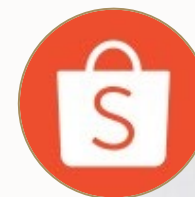
Lenovo



Ryan LIN Tzu-Chun
Digital Transformation
Analyst
Lenovo, Shanghai
MITB (AI)
Class of 2022



TSAO Yu-Lun
Data Analyst
Bytedance, Singapore
MITB (AT)
Class of 2021



Marina LIN Yu-Hui
Product Manager
Shopee, Singapore
MITB (AT)
Class of 2021



Jeff CHEAH
Senior Associate
Product Manager,
Singapore
MITB (AT)
Class of 2021



LEE Ya-Jung
Data Analyst
Micron Technology,
Singapore
MITB (FTA)
Class of 2021



CHU Yi-Ning
Strategic Planning Technical
Analyst
Jabil, Singapore
MITB (AT)
Class of 2023



Take charge and

Demonstrate your competitive edge – Our Taiwanese graduates are hired in various industries



**Casper CHEN
Po-Liang**
Assistant Manager
Yuanta Financial
Holdings Co., Taipei
MITB (AT)
Class of 2021



YANG Chung-Kai
Business Analyst
HSBC Bank, Shanghai
MITB (AT)
Class of 2020



HSU Hsin-Yu
Seller Operation Data
Analyst
Shopee,
Singapore
MITB (AT)
Class of 2021



**Cathy CHU Shan-
Hui**
Advocacy Programme
Manager,
AWS, Singapore
MITB (AT)
Class of 2024



TING Yen-Hsin
Senior Consultant
Deloitte,
Taipei, Taiwan
MITB (AT)
Class of 2023



LEE Chia-Yin
Senior Associate
CTBC Bank,
Taipei, Taiwan
MITB (AT)
Class of 2023

Take charge and

Demonstrate your competitive edge – Our graduates are hired in various industries



**Alakananda
GIRIDHAR**
Senior Associate
EY, Singapore
MITB (FS)
Class of 2020



**Kendra
GADONG**
Senior Data Analyst
We+ Asia, Taiwan
MITB (AT)
Class of 2022



**Kanokkorn
PRASONGTHANAKIT**
Co-Founder & CEO
Davoy, Data Analytics
Solutions, Bangkok
MITB (AT)
Class of 2018



Leonard GOH
Senior Director,
Workforce Intelligence
Oracle, Singapore
MITB (AT)
Class of 2017



Michael Djohan
Director
Evonik,
Singapore
MITB (DT)
Class of 2024



**Rodwin
ALVAREZ**
MLOps Lead,
Sydney
MITB (AI)
Class of 2019

在新加坡讀商業分析碩士是什麼體驗？SMU MITB 就讀心得



林梓鈞 Ryan Lin · [Subscribe](#)

7 min read · Apr 20, 2021



School of
Computing and
Information Systems

為什麼選擇新大？

新加坡管理大學（Singapore Management University, SMU）當初成立的目的即是培育社會科學、商學人才，並提供在職人士、菁英進修與學習的學校，因此學校推出的課程與 Program 都緊依就業市場，也是這三所大學中最早設立 Business Analytics 學程的，也曾多次在 QS MSBA 排名中拿到亞洲第一！也因為這樣的特性造就 SMU 獨有的優勢！

協助就業的課程設計

我認為 SMU 的課程都是圍繞就業為導向，舉例而言，我們的上課時間多在平日晚上 7-10 點或週六白天，方便學生實習與在職生進修。另外每個 Program 都有 Career Advisor，能協助你進行 Mock Interview、修改履歷、提供職涯建議，通常透過 Microsoft Teams 進行，方便聯繫！

同時，學校也會緊依目前就業市場需求，新增 Program 或課程，舉例來說 MITB 原先有 3 個 Track，分別為專注在金融科技、財務分析的 Financial Technology & Analytics，想往資料分析領域發展但沒有程式背景的 Analytics，專注在演算法使用和 Modeling 的 Artificial intelligence，2021 年開始新增了協助公司數位轉型、側重 Top-down 策略的 Digital Transformation，讓過去尚未接觸過資料分析與轉型的企業主管能夠進修。

！

面試官&畢業生採訪：SMU MITB 商業資訊科技碩士畢業的她，順利留在新加坡工作！教授揭秘求職&面試心法！



School of
**Computing and
Information Systems**

最後更新時間：2025 年 02 月 20 日

今天邀請到 2023 年從 **SMU MITB** 畢業後，成功留在新加坡工作的 Yi-Ning 分享她在新加坡留學的心得以及 **SMU MITB** 是如何助力她在海外求職的經歷。Yi-Ning 從台北大學畢業後，前往新加坡就讀 **SMU MITB**，並在入學後於新加坡的 **ESTEE LAUDER** 實習，最終從 **SMU** 畢業後順利留在新加坡工作！

當初為什麼選擇 **SMU MITB**？該課程如何幫助你從經濟學背景轉換到技術和分析領域？

當初在選擇學校的時候考量的重點是就業，**MITB** 畢業要求 6 個月實習及新加坡提供畢業生一年的簽證找工作，**SMU** 在新加坡的認可度也高，以我個人的經驗，學歷是有效轉換成履歷。

綜合來說，你認為 **SMU MITB** 如何幫助你準備數據分析及商業領域的職涯？有什麼優勢是其他類似科系或學校可能無法提供的？

MITB 每堂課都需要做個人或團體的 **project**，是個累積作品的機會。優勢的部分，我覺得是提供非常多樣化的課程，選課自由度大，可以修其他 **track** 的課，想走 **finance** 可以修 **fintech track** 的課，想打磨 **coding** 可以修 **AI track** 的課，以及某些課一年會開兩次，因此可以依照課程強度及實習規劃做安排，不用擔心這學期沒修到某堂課就沒機會了。

班上大約有一半的本地學生或是在新加坡工作的外國人，想留在新加坡工作的話，多跟本地人接觸可以多了解新加坡的職場環境及文化。

MITB: Admission, application and financial aid



NTHU CTM- SMU Fast-Track & Concurrent Masters Programme



School of
**Computing and
Information Systems**

Type of Collaboration	NTHU College of Technology Management Student Type	CGPA Requirements	Aptitude Test Requirements	English Language Proficiency Requirements	Discount Amount	Candidature at MITB
Fast-track	<ul style="list-style-type: none"> 4th Year Bachelor Degree Students 	<ul style="list-style-type: none"> Min 3.0/4.0 CGPA at point of application 	<ul style="list-style-type: none"> GMAT 630/GMAT Focus 585 GRE 316/ SMU AT overall 58 	<ul style="list-style-type: none"> IELTS 7.0/ TOEFL 100 	<ul style="list-style-type: none"> 0 CU mapped: S\$4,000 1 CU mapped: S\$7,000 2 CUs mapped: S\$10,000 3 CUs mapped: S\$13,000 4 CUs mapped: S\$16,000 	<ul style="list-style-type: none"> With Credit Exemptions: Min 1 year to Max 2 Years With No Credit Exemptions: Min 1.5 Years to Max 3 Years
Concurrent Masters	<ul style="list-style-type: none"> Masters Degree Students 	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> GMAT 610/GMAT Focus 575 GRE 313/ SMU AT overall score 56 	<ul style="list-style-type: none"> IELTS 6.5/ TOEFL 90 	<p>Min. of B grade/70 marks achieved in a pre-approved NTHU course), up to max of 4 courses.</p>	<ul style="list-style-type: none"> Min 1 year to Max 2 years

NTHU -SMU Matching Course Units

NTHU Course Code	NTHU Course Title	SMU Course Code	SMU Course Title
CS 5656 OR EE6550 OR CS 5540 OR CS 5651	Deep Learning OR Machine Learning OR Pattern Recognition OR Machine Learning	CS610	Applied Machine Learning
ISS 5077	Computational Statistics for Data Science	IS630	Statistical Thinking for Data Science
SNHC7310 OR CS 5631	Intro. to Natural Language Processing and Information Retrieval with Applications in Social Networks OR Natural Language Processing	CS605	Natural Language Processing for Smart Assistants
ISS5090	Business Analytics using Machine Learning	ISSS602	Data Analytics Lab
TM 5117	Project Management	IS603	IT Project & Vendor Management
ISS 5037	Text Mining	ISSS609	Text Analytics & Applications

Tools Difference:

*1. ISS 507 uses R, MITB
IS630 uses Python)*

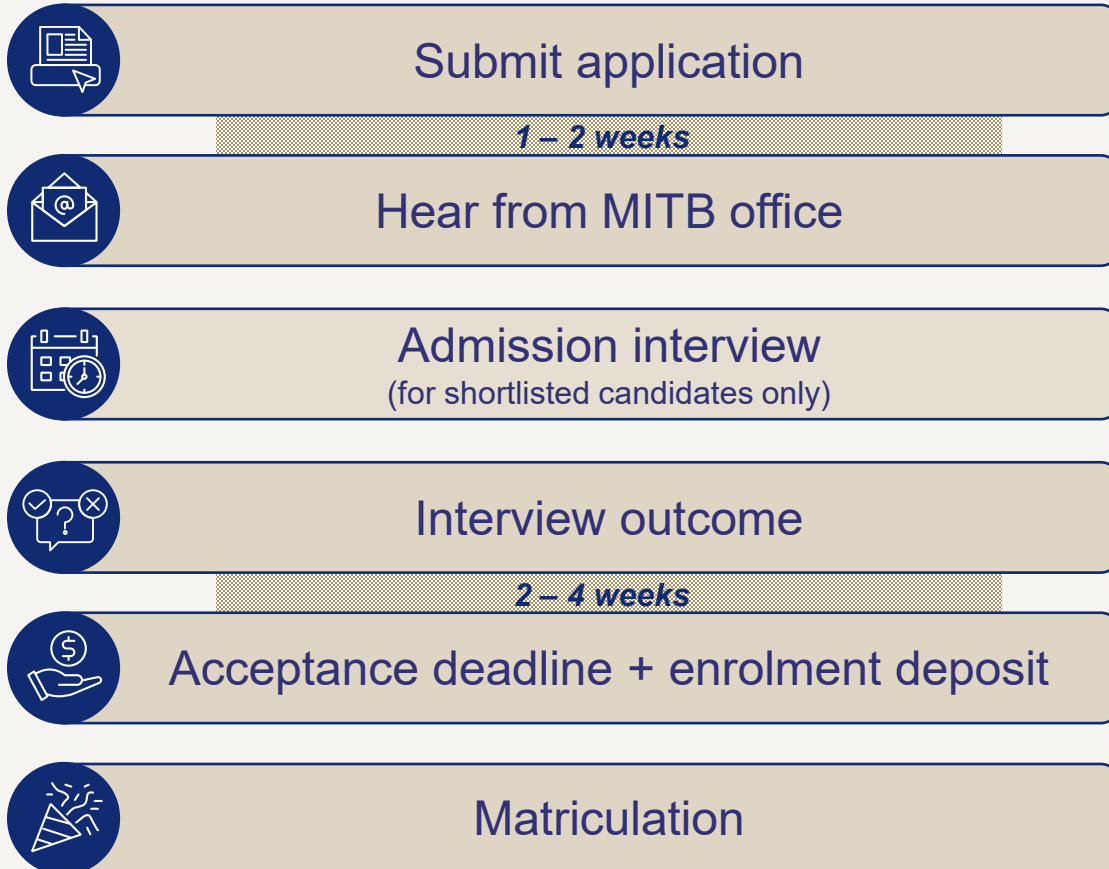
*2. ISS5090 uses
RapidMiner and
Tableau, MITB ISSS602
uses SAS Viya*

Admission Criteria

- A bachelor's degree in any field
- Good GMAT / GRE / SMU Admission Test scores
- If required, English proficiency scores (e.g., TOEFL or IELTS)

Admission interviews will be conducted for shortlisted candidates.

Application process: What to expect









Application period:

Intake	When to apply
August	1 January to 31 May
January	1 June to 31 October

Note: Application is on a rolling basis.

Note: GMAT/GRE/SMU Admission Test scores can be submitted AFTER the Interview.

Scholarships administered by SMU

	 Singapore*	 ASEAN countries	 Rest of the world
MITB Excellence Scholarship	S\$15,000	S\$15,000	S\$15,000
MITB Career Transformation Scholarship	S\$7,500	S\$7,500	S\$7,500
MITB Scholarship	S\$5,000	S\$5,000	S\$5,000
Postgraduate Science Research	S\$5,000	S\$5,000	S\$5,000
SMU ASEAN PG	S\$10,000	S\$10,000	-
Richard Lim Lee	S\$30,000	 S\$62,500 [PH Citizens] (tuition, living expenses)	-
Gokongwei Brothers Foundation	-	 S\$20,000 [PH Citizens] (tuition)	-
Soegiarto Adikoesoemo PG	-	 S\$70,000 [ID Citizens] (tuition, living expenses)	-
Vingroup Young Talent	-	 ~S\$79,000 [VN Citizens] (tuition, living expenses, airfare)	-
Singapore Tech Talent	S\$8,000 [Citizens only]	-	-
SAS Institute Scholarship	S\$10,000	-	-
IMDA Gold Medal Award	S\$3,500	S\$3,500	S\$3,500
SAS Institute Top Student Award	S\$2,000	S\$2,000	S\$2,000
Shuqing Top Student in Web3 Fundamentals	S\$2,666	S\$2,666	S\$2,666

*Unless stated otherwise, the scholarships are open for both Singapore Citizens and Permanent Residents (PRs).

Programme Fees



Online application fee: S\$100
Application fee waiver code: MITBPU1025
Only for this session's attendees!



Registration fee: S\$500



Tuition fee: S\$54,500 (inclusive of GST*)
Payable in 3 billings



Scan for more info

**The prevailing GST applies. The amount illustrated is based on 9% GST, which takes effect on 1 January 2024. The applicable total amount payable will be charged accordingly.*

Thank you

Application fee waiver code:

MITBPU1025

Scan these for



**Upcoming
MITB Events**



**MITB
Brochure**



**MITB key
application info**



**MITB
Scholarships &
Financial Aid**

For further enquiries, email us at
mitb@smu.edu.sg