



ANNUAL REPORT

2021

International Trading Institute
(ITI@SMU)

ABOUT US

The International Trading Institute (ITI@SMU) was established as a tripartite partnership between the Singapore government, industry partners and the Singapore Management University. As the first trading institute in the world to be set up within a university, ITI@SMU is a think tank that supports the trade ecosystem with a steady pool of future ready talent and industry support programmes.

KEY AREAS OF FOCUS

Creating value for sectors and partners by growing a pipeline of talent for the trading and maritime value chains.

Strengthening Singapore's position as a trading and maritime hub through ecosystem partnerships.

Leading the development of programmes and initiatives for the sustainability of the trading and maritime sectors.

ITI@SMU continues to position itself as a strategic asset for the nation's trading and maritime sectors and will be constantly exploring new and exciting possibilities on how to create value and impact for her stakeholders.

MESSAGE FROM ACADEMIC DIRECTOR

Dear Partners and Friends,

2021 was another challenging year for the International Trading and Maritime Sector. Amid the Covid-19 pandemic and woes brought on by the blockage of the Egypt's Suez Canal - one of the world's busiest trade routes crises, the international trade and maritime industry is undergoing a sea change caused by digital disruption, climate and environmental concerns and geopolitical challenges. With digital consumption of goods and services increasing dramatically, issues such as the sustainability agenda and the race to put resiliency and transparency into supply chain arrangements have been brought to the fore.

Leveraging the tripartite partnership with the public sector agencies, industry partners and SMU, ITI@SMU continues to play a critical role in the development of talent pools and the creation of impactful knowledge for the international trading and maritime sector.

Among the many highlights of 2021 was our pilot launch of a Work-Study Elective. This programme is a collaboration between SMU and industry partners, providing SMU students with the opportunity to undergo a six-month extended internship programme at a partner company in the wholesale trade and maritime sector.

The successes and achievements of our students in the Maritime Business & Operations Track (MBOT) and International Trading Track (ITT) are an encouraging sign that we are moving in the right direction. This year, three of our undergraduates - Elysia Tng Jia Yu, Gabrielle Soh Pao Pei, and Wong Pu Wo were granted MaritimeOne scholarships. While, in the inaugural Maritime Singapore Connect (MSC) Maritime Digital Challenge, the team from SMU walked away as Champion. Encouragingly, SMU students are also continuing to place well in the industry after graduation.

On a different note, Professor Emeritus Annie Koh retires from her role in ITI@SMU. I would like to thank her for her past leadership and for growing ITI@SMU to be what it is today.

I would also like to thank all our friends and partners for your support. ITI@SMU counts on your continuing support as we push forward to build up the talent pipeline and create impactful knowledge for the industry.

Dr Patrick Tan
Senior Lecturer of Strategic Management
Academic Director, International Trading Institute

ITI@SMU BENEFACTORS

- Adani Global Pte. Ltd.
- Aramco Trading Singapore Pte. Ltd.
- Bright Point Trading Pte. Ltd.
- Bunge Asia Pte. Ltd.
- China Oriental Singapore Pte. Ltd.
- Diamond Gas International Pte. Ltd.
- Drey Moor Fertilizers Overseas Pte. Ltd.
- E-Commodities Holdings Pte. Ltd.
- Franco-Asian Enterprises Singapore Pte. Ltd.
- Emirates National Oil Company (Singapore) Pte. Ltd.
- Gazprom Marketing & Trading Singapore Pte. Ltd.
- GTS Global Trading Pte. Ltd.
- Hengli Petrochemical International Pte. Ltd.
- Itochu Petroleum Co (Singapore) Pte. Ltd.
- Kairos Oil Trading Pte. Ltd.
- Koch Refining International Pte. Ltd.
- Lee Foundation
- LH Trading
- Lianfeng International Pte. Ltd.
- Lobb Heng Pte. Ltd.
- Marubeni ASEAN Pte. Ltd.
- Mercuria Energy Trading Pte. Ltd.
- Ocean Energy Pte. Ltd.
- PetroChina International (Singapore) Pte. Ltd.
- Petron Singapore Trading Pte. Ltd.
- Phillips 66 International Trading Pte. Ltd.
- PTT International Trading Pte. Ltd.
- SABIC Asia Pacific Pte. Ltd.
- Shell Eastern Trading (Pte) Ltd.
- SK Energy International Pte. Ltd.
- Sumifru Singapore Pte. Ltd.
- Swiss Singapore Overseas Enterprises Pte. Ltd.
- TotalEnergies Trading Asia Pte. Ltd.
- Womar Logistics Pte. Ltd.
- World Fuel Services (Singapore) Pte. Ltd.

International Trading Track (ITT)

Singapore's long-serving position as an international trading hub provides a myriad of career opportunities for students as many world-class trading and maritime companies have established themselves in the country. The International Trading Track (ITT) is offered by the Lee Kong Chian School of Business (LKCSB) as a specialisation under the Finance major. This track prepares students for exciting careers in trading, shipping logistics, trade finance and maritime services, amongst many others.

Maritime Business & Operations Track (MBOT)

The Maritime Business and Operations Track (MBOT) is a multidisciplinary programme, which has been offered by the Lee Kong Chian School of Business as a specialisation under the Operations Management Major since 2019. As the maritime sector undergoes digital transformation, students develop a firm foundation in maritime business operations, as well as contextualised digital knowledge to support the fast-evolving maritime industry. Highlights of the track include a structured overseas exchange with the Copenhagen Business School, and Industry Study Missions that take students to different ports and maritime companies around the world for an exciting real-world learning experience.



Excellence Award

The ITI@SMU Excellence Awards are awarded to deserving undergraduates from ITT & MBOT. Successful applicants are given the opportunity for an internship with our industry partners to learn the ropes of the business. The award is presented to students upon graduation from their respective programme, with no subsequent bond being imposed.

Our 2021 award recipients

Student

Organisation

Andre Lau Yaoqiang

ABN AMRO Bank

Daryl Siow Wei Han

Diamond Gas International Pte. Ltd.

Foo Guo Lin

Petrochina International (Singapore) Pte. Ltd.

Jain Rishabh Kumar

Swiss Singapore Overseas Enterprises Pte. Ltd.

Wong Winston Zheng Da

Swiss Singapore Overseas Enterprises Pte. Ltd.

Xu Jiapo

Wilmar International

Yee Pei Xin, Kimberly

Diamond Gas International Pte. Ltd.



Congratulations!

Dean's List

Student	School	Year of Admission	Year of Graduation	Track
Ang Cygeern	BBM	2017	Dec 2021	ITT
Chong Guyan	BBM	2018	May 2022	ITT

Wholesale Trade & Maritime Electives 2021

Student	Organisation
Asill Singh Bardh	ADM Asia Pacific Trading Pte. Ltd.
Kyaw Myo Khant	A.P. Moller – Maersk
Mihir Malhotra	A.P. Moller – Maersk
Ng Si Ying	A.P. Moller – Maersk
Nhway Nhway Khin Soe	Klavaness Asia Pte. Ltd.
Sangker Jeevan	Phillips 66 International Trading Pte. Ltd.
Tan Rui Yang	A.P. Moller – Maersk

Three SMU undergraduates were awarded MaritimeONE Scholarships to pursue voyages in maritime studies



"The maritime industry plays a pivotal role in ensuring that the global supply chain has access to essential supplies. It serves as the backbone of global trade, allowing the majority of goods to be transported by sea. I am grateful for the MaritimeOne Scholarship, which allows me to embark on a new chapter in this dynamic and resilient industry." **Wong Pu Wo**

SMU's Team Klaver crowned Grand Champion in MSC Maritime Digital Challenge 2021

The inaugural Maritime Singapore Connect (MSC) Maritime Digital Challenge kicked off in August 2021, with a call for tertiary students from various disciplines to solve practical issues faced by the maritime industry. Teams competed for the prize money of \$3,500, as well as the chance to gain internships and be mentored by industry professionals.

Organised by Singapore Maritime Foundation's MSC Office together with three maritime companies – Eastport Maritime, Kanda and Torvald Klaveness, the challenge gave tertiary students with a passion for technology an opportunity to better connect what they had learnt to actual digital transformation scenarios taking place in the maritime industry.

The grand finals, held on 13 November 2021, saw Singapore Management University's Team Klaver emerge as the Grand Champion for the Torvald Klaveness Challenge with their "Create an app for seafarers to input clean data to develop insights for sustainable shipping" entry.

The team comprised of the following students:

- Farm Jia Jia, Lee Kong Chian School of Business (LKCSB), Year 4
- Ryan Tan Zheng Jie, LKCSB, Year 1
- Gabrielle Soh, LKCSB, Year 3 (MBOT Track Student)
- Caleb Cheong, School of Computing and Information Systems (SCIS), Year 2
- Brandon Christopher, SCIS, Year 2



Source: SMU Newsroom

ACTIVITIES IN 2021

4 Non-Credit Courses

- Agri-Commodity Trading (*January to February*)
- Geopolitical Risks and Their Impact on Shipping Trade Flows (*February*)
- Maritime and Logistics Management (*September*)
- Commodity and Energy Trading (*October*)

6 Industry Speaker Series

- Downstream and Upstream of LNG (*January*)
- Basics of Trading and SGX EcoSystem (*February*)
- Entering into the World of Commodity Trading – A Consultant’s Perspective (*March*)
- Dry Bulk Shipping – Best Year in a Decade after a Year of the Pandemic (*September*)
- Iron Ore Value Chain (*September*)
- Digitalisation and Process Optimisation across the Supply Chain (*October*)

4 Thought Leadership Series

- Re-imagine Trade and Shipping Digitalisation and Decarbonisation (*March*)
- Corporate Sustainability – For Love Or Beyond? (*June*)
- Managing Innovation in the Digital Economy (*June*)
- Working with AI-Enabled Smart Machines (*August*)

8 Experiential Learnings

- Re-imagine Trade and Shipping – Digitisation and Decarbonisation (*March*)
- Know-Thy Commodity (*March*)
- Advanced Maritime Leadership Programme (*April*)
- Corporate Sustainability – For Love or Beyond (*June*)
- Working with AI-Enabled Smart Machines (*August*)
- Know-Thy Commodity (*October*)
- Internship Opportunities (*Ongoing*)
- Work-Study Elective (*Ongoing*)

4 Students Outreach

- Info Session to Finance Students (*February & September*)
- Info Session to Operations Management Students (*February & August*)

Site Visits and Industry Study Missions

For the safety and well-being of our students and staff, travels and visits were postponed to 2022

SMU-CBS STRUCTURE EXCHANGE (2015 TO 2021)

**98
CBS
Students**

Courses taken at SMU

- Port - Focal Logistics and Maritime Operations
- Shipping Strategy - The Global and Digital Challenges
- Trade Finance
- Up to 2 Electives

**56
SMU
Students**

Courses taken at CBS

- Markets, Regulation and Security in the Maritime Sector
- Strategy and Digitalization in International Shipping
- Risk Management
- Up to 2 Electives

Non-credit Course - Guest Seminars

To ensure that students on the ITT and MBOT tracks benefit from a holistic learning experience, ITI@SMU organises non-credit courses (also known as guest seminars) to complement their knowledge acquired in the classrooms.

The non-credit courses are delivered by industry practitioners to equip students with additional real-world knowledge. These courses are not graded, but attendance is compulsory.



Agri-Commodity Trading

Jaime O'Donahue Asian, Head of Coffee, Louis Dreyfus Company, delivered a lecture on agri-commodity trading. He spoke on the types of commodity, the roles of traders, identifying risks in the supply chain, trade flow, and the role of finance from the traders' perspective. He also gave an overview of marketing concepts, including spot and forward cash contracts, the sustainability of the Agri-commodity in terms of future trends, the role of technology, climate change, disintermediation, traceability, and moving downstream.

Geopolitical Risks & Their Impact on Shipping & Trade Flows

Punit Oza, Director, Klaveness Asia, gave a lecture on Geopolitical Risks and Their Impact on Shipping and Trade Flows. Sharing from his experiences in the maritime industry, he gave an overview of the impact of geopolitical risks on the Capesize and Panamax markets, and on shipping and trade flows, as well as talked about alternative sourcing possibilities of coal for China.

Through examination of various geopolitical impact points, he demonstrated how barriers to trade, such as tariffs or quotas, critical pathways like the Suez Canal, demographics, economic imperialism, and the birth of new trade flows, new technologies, and wild cards such as COVID, Brexit and Trump were shaping global trade flows.

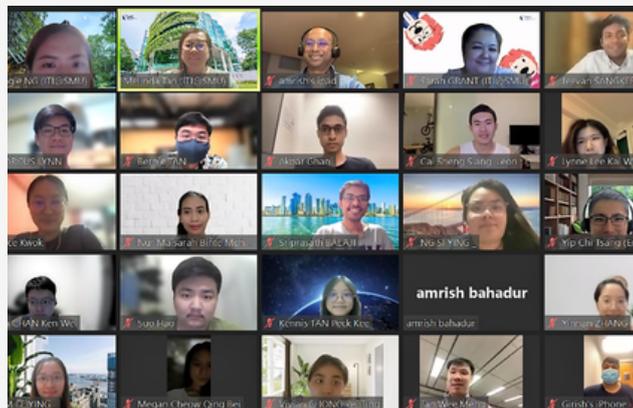
Oza also shared real-life case studies to demonstrate how data could be used to ensure access to the most updated information, and for making informed decisions. All in all, the course provided an understanding of geopolitical risks and their impact on trade and shipping flows, which is fundamental to decision making for both trading and shipping companies.





Ocean Freight Management

ITI@SMU welcomed industry veteran John Iversen, who presented a guest seminar on maritime and logistics management. He covered how different ports had adapted to the 'new normal' in the supply chain, shaped by events such as the Covid-19 pandemic, the U.S.-China Trade Wars, and the Suez Canal blockage. He also underpinned the importance of Just-in-Time in logistics, using real-life examples to illustrate the concept. Students then had the opportunity to learn about the various transportation modes involved in an Engineering, Procurement, and Construction project by looking at case studies of how different types of cargoes were being handled in the chain.

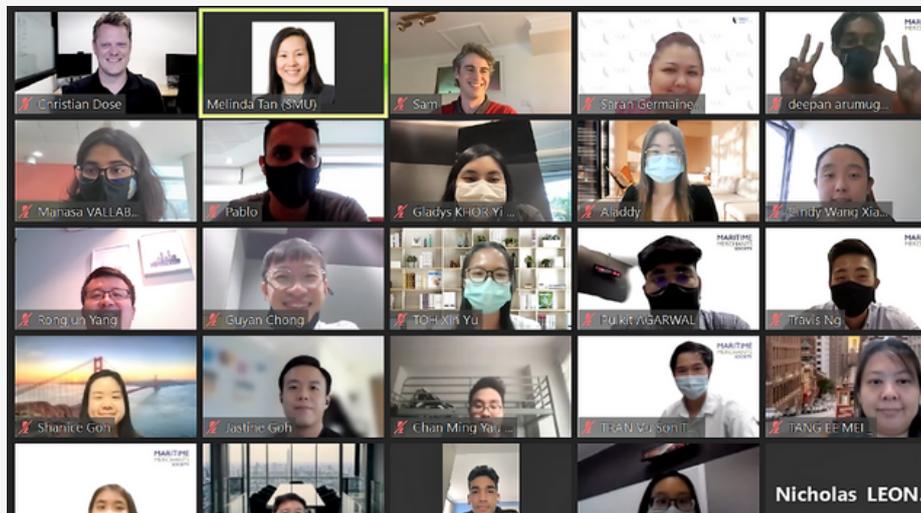


Commodity and Energy Trading

Amrish Bahadur, Head of Middle Distillates at Vitol Asia, was invited to give students an introductory perspective of what commodity and energy trading entailed. Over the 2-day seminar, students were introduced to fundamental and industry-relevant trading concepts such as backwardation, contango and arbitrage, as well as the operational nuances and relationship between risk and rewards on physical trades. They then applied and tested these learnings by playing a hands-on trading game, which required them to enter their trades based on various scenarios.

Industry Speaker Series

ITI@SMU organised a series of seminars centred around the latest developments affecting the trading and maritime sectors. These practitioner-led sessions are designed to enhance the knowledge that students learn in the classroom by examining various subjects that impact the world economy today.



Upstream and Downstream of LNG

ITI@SMU invited Diamond Gas International Pte Ltd (“DGI”), a wholly-owned LNG marketing, trading and shipping subsidiary of Mitsubishi Corporation (“MC”), to talk about the upstream and downstream of LNG. In this session, Mizlan Masri, Senior Vice President of Marketing and Optimisation, shared about how Energy Transition was affecting the gas industry, the usages of different types of natural gas such as Piped Gas and LNG, and the value chain of LNG.

Basics of Trading and SGX Ecosystem

Adrian Ho, a specialist in sales and trading of global equities in Singapore, Hong Kong and the United States, conducted a webinar for students with an interest in trading. Using real-time research on market conditions, and a practical analysis on cash equities and structured products based on various risk appetites, he guided participants through the basics of building trade plans in the Singapore market. He focused on the ecosystem of the Singapore stock market, trading goals, the types of traders and trading techniques, and trading products, as well as shared methodologies for setting up weekly and monthly-based trade plans.

Entering into the World of Commodity Trading – ‘A Consultant’s Perspective’

Director at Baringa Partners LLP, Sam Porter, gave a lecture on the fundamentals of what commodities trading organisations do, the value they create, how they are organised, and the different roles involved. Pulling from his experience as a consultant with Oil and LNG trading organisations, he shared various real-life examples of risk management methodologies, and CTRM (trading architecture) adoption.



Dry Bulk Shipping – Best Year in a Decade after a Year of the Pandemic

Ethan Hoe, a Lead Dry Bulk Freight Market Analyst at Thurlstone Shipping, delivered a seminar explaining the core underlying market trends that had strengthened the global dry bulk shipping markets during the Covid-19 pandemic. In the seminar, he illustrated in detail how the dry bulk shipping market operates, as well as the industry variables involved. An SMU alumnus from the ITT and MET tracks, Ethan also shared tips with students on how to best equip themselves with the relevant market knowledge needed to embark on a career in dry bulk shipping.

Iron Ore Value Chain

ITI@SMU invited Benjamin Stewart, Head of Iron Ore and ICM at Adani Global, to give a talk on the iron ore value chain. Sharing from his experiences as a trader, he talked about the demand and supply drivers affecting the trading prices of iron ore, as well as other macroeconomic factors, including government and state policies and banks' financing environment, and their role in the value chain.

Digitalisation & Process Optimisation across the Supply Chain

ITI@SMU invited Benoit Cosserrat, who leads innovation and digital transformation projects at CMA CGM, to deliver a seminar on Digitalisation & Process Optimisation across the Supply Chain. With years of rich practical working experience in blockchain technology projects, data analytics and AI, Benoit was able to demonstrate how technology could be used to mitigate challenges faced within the supply chain, and how it provided opportunities to improve processes across the supply chain network.

Students also learnt about how different trade lanes were responding to the boom in e-commerce sales during Covid-19, and why it was important for the shipping industry to recognise the need for digital transformation to ensure future successes.

Thought Leadership Series

As part of our Business Partnership initiative, ITI@SMU seeks to give value back to our supportive Industry Partners through our Thought Leadership Series. This series is designed to bring industry partners, students and faculty together to discuss the latest business trends, research and problems, and for industry leaders to present their perspectives on these challenges.



Re-imagine Trade and Shipping Digitalisation and Decarbonisation



Source: SMU Centre for Management Practice

On 26 March 2021, we had Perlin Chan, Serene Johnson, Aladdy Choo and Tan Lay Lin join us as panel speakers at our International Trading Institute@SMU forum, “Re-imagine Trade and Shipping: Digitalisation and Decarbonisation”. The discussion panel was moderated by Professor Emeritus Annie Koh, Senior Academic Director of the International Trading Institute (ITI).

Revolving around targeted regulation and the mindset shift needed to transform the maritime industry, panellists zoomed in on the International Maritime Organisation’s (IMO) regulation for lower sulphur fuel content, which had been introduced at the beginning of 2020. Garnering praise from environmental groups and even some shipping companies such as Maersk, who were excited at the climate change impact of a potential 77 percent drop in sulphur dioxide emissions (8.5 million metric tonnes), the new regulation, nevertheless, also brought about concerns of uncertainty and hand-wringing, as well as oversupply resulting in cost pressures for the shipping industry.

Corporate Sustainability – For Love Or Beyond?

The term “Corporate Sustainability” has increasingly become a business buzzword in recent years. Just what is it, and why is it important? While corporate growth and profitability are important, corporate sustainability recognises the need to pursue long-term growth that is achieved in harmony with people, the society and the environment.

As part of ITI@SMU’s Thought Leadership Series, we had the privilege of having Professor Shantanu H. Bhattacharya, Deputy Dean (Programmes) and LKCSB Professor of Operations Management, share more about the topic of Corporate Sustainability. In his session, he cited the Tragedy of the Commons theory, where individuals with access to a shared natural resource (also called a common), act in their own interest, and in doing so, deplete the resource. Consequently, many developed countries and developing countries around the globe were now at a standstill on environmental issues, due to competing economic goals. He noted that this trade-off between cost efficiency and environmental impact, which was being faced at both corporate and personal levels, had already caused serious degradation to our climate, carbon content and water.

Also, whilst acknowledging that many countries today were required to report the “Triple Bottom Line” of profits, social and environmental impact, Professor Shantanu felt that such reporting standards were in need of updating and, as yet, was far from being “foolproof”.



Source: SMU Newsroom

Notwithstanding, he also shared positive examples of companies that had demonstrated true corporate sustainability. One such company was Nestle, which had gone beyond compliance standards to create shared value for its suppliers and the community. He highlighted how by incorporating incentives into the company’s sustainability strategy, Nestle was able to rank number one on consumer perceptions of sustainability; this was despite having a lower gross margin and only on-par net profit compared to their competitors. Furthermore, the company also had a higher Price to Equity (P/E) Ratio in relation to competitors, indicating more positive investor outlooks. He surmised that through Nestle’s enduring sustainability efforts, investors were able to believe more strongly in the long-term resilience of the company.

The talk was followed by a lively discussion between Professor Shantanu and the participants, who shared their personal views on sustainability, and how companies could do their part for sustainability in Singapore.

Managing Innovation in the Digital Economy



Source: SMU Newsroom

With the rapid acceleration of the digital economy, business processes and models need to innovate ever more quickly in order to stay competitive. The challenge of innovation has also been significantly impacted by the ongoing pandemic, spurring underlying threats.

Sharing his insights on “Managing Innovation in the Digital Economy” was Professor Arnoud De Meyer, formerly SMU President and now Professor Emeritus of Operations Management, and an internationally recognised researcher in the areas of R&D and Innovation Management, Manufacturing Strategy and International Management.

In his talk, Professor De Meyer talked about how trade friction around the world, such as the United States’ requirement of country of origin had resulted in ‘Slowbalisation’, which was increasing the complexities of logistics globally, and how conversely, we were also facing rapid digitalisation, brought about by new technologies such as data analytics, blockchain, AI and robotisation.

In response, he suggested leveraging the potential of business ecosystems and networks of organisations and individuals to create unique shared value and facilitate co-learning. He explained that such an approach would not only help companies to co-evolve capabilities, roles and align investments to create more value and efficiency, but that it would also give them the flexibility to adjust activities and scale up quickly.

Professor De Meyer also shared practical ways in which to optimise the use of ecosystems to innovate, create and deliver value, especially in the face of increasing volatility and uncertainty. For example, to monetise the value of ecosystems, controllable keystones or elements of the ecosystem could be identified, with the right toll gates set up to collect a share of that created customer value.

The session ended with an engaging Q&A session, where Professor De Meyer lent further insight on some of the factors individuals must possess to create value for their organisations, the need to have a deeper understanding of how digital technology can help us, and how countries can ensure the sustainability of innovation without creating an over reliance on government support.

Working with AI-Enabled Smart Machines



Source: SMU Newsroom

Artificial Intelligence (AI) based systems are increasingly being embedded into more and more aspects of our everyday lives, both as consumers and employees. Worldwide, fears of whether or not further advancement and increased diffusion of AI capabilities will take over our livelihoods are causing us to re-examine our role as humans today.

In a webinar held on 25 August 2021, Professor Emeritus Steven Miller provided clarity on some of these topics by sharing about how AI can and should be embraced. Organised by Singapore Management University's Business Partnerships unit and ITI@SMU, the thought leadership session brought together industry partners, faculty and students to delve into the issue of "Working with AI-Enabled Smart Machines".

Background

Over an 18-month period (January 2020 to June 2021), Professor Emeritus Miller worked with noted U.S. author and Business-IT thought leader Professor Tom Davenport to document 30 examples of people using AI-enabled smart machines in their everyday work for an upcoming book – "The Future of Work Now: People Collaborating with Smart Machines". While the book was only slated to be launched in 2022, we were privileged to get a sneak preview into some of the book's contents, as well as hear about the insights gained through the project.

These case studies were wide reaching and comprehensive, encompassing a range of industry settings from insurance and financial services to healthcare, and covered aspects from factory floor production through to field operations in each of the different industries. The case studies also included examples from various countries, including Singapore-based companies, which Professor Miller focused on during the course of the webinar.

DBS

One of the examples cited was DBS Singapore's migration to data analytics starting in 2010 and their follow-on progression into machine learning. This migration exercise included the adoption of a new system that could draw on the bank's existing data sources as well as external data to evaluate the probability of fraud or financial crime. Professor Miller noted that the efficiency of this system was in stark contrast to their previous rule-based system, which required bank employees to spend the majority of their time on tasks such as transaction surveillance, data amalgamation and sorting through of system-generated alerts (many of which were false positives).

With the new machine learning based system analysing and evaluating the rule-based alerts, transaction surveillance employees were freed up to focus directly on the higher category, and potentially more serious alerts. In short, employees no longer needed to look at large numbers of false alarms and manually amalgamate all the supporting information, since the new system's machine learning application could automate all of these background data access and integration work.

One important takeaway from this case study was that even though employee productivity had increased, the number of employees doing transaction surveillance work did not actually reduce. Rather, DBS used this recouped time and capacity to move employees onto higher value-add work – investigating legitimately suspicious transactions, keeping abreast of new types of financial fraud and crime trends, and working with the technology team to better detect new types of financial crimes.

Shopee

Southeast Asia's largest e-commerce platform, Shopee is a digital-native born company that relies heavily on AI-enabled data analytics. In this example, Professor Miller highlighted the unique role of Shopee's product managers, who orchestrate the complex process of developing, phasing in and scaling new Shopee e-commerce platform capabilities and feature enhancements. To perform their task well, product managers not only have to meet business goals and satisfy customer needs, but also navigate the constraints of newly-developed AI capabilities and features, and the many conflicting requirements and trade-offs that can potentially arise.

To ensure the latter, Shopee came up with a model of having two different types of product managers. In addition to the typical product manager, which come from a more business-oriented background, the company also decided to redeploy computer science trained staff who had previously worked on building AI-based prediction models to work as product managers. Because the latter had in-depth knowledge of the capabilities of Shopee's AI-models and were more technically oriented, they were able to recognise potential AI-empowered capabilities and features that people on the business side were not be able to see.

Professor Miller shared that by partnering these two types of product managers, Shopee was able to benefit from both the “bottom-up” suggestions coming from the data science team, as well as from the more typical “top-down” approach, where business product managers direct the requirements for new AI-based product capabilities and features. This unique arrangement helped position the company to improve their sales and stay competitive.

Certis

The third local company highlighted was Certis Group, which provides security and service support to large buildings and properties, including airports, shopping malls, commercial buildings and industry parks. The particular case study setting discussed was Changi Jewel Airport where Certis manages physical security, guest services and facilities maintenance.

Here, Professor Miller shared about how AI, thousands of sensors, a centralised Smart Operations Centre for monitoring, communication and coordination, and an intelligent mobile app enabled Certis to deliver comprehensive support to the mega complex in a cost effective manner. By relying on such technologies, Certis was able to reduce the number of staff which would have been traditionally required to monitor and manage such a massive multi-use facility, without any compromise to service offerings.

Highlighting one of the examples of AI and digitalisation in action, Professor Miller shared about the company’s development of a mobile app tool to support ground staff in creating and submitting incident reports. Through this app, time-consuming and complex submissions of incident reports was greatly simplified, and the challenge for older employees who found it difficult to write reports in English was effectively solved. Additionally, the mobile app also enabled security officers, guest service officers, and facility maintenance workers to provide cross-functional support for one another.

Through embracing technology, Certis was able to not only enhance the job scope for staff, but also support older workers in retaining their jobs through upskilling.

Humans and AI in Close Partnership

Summing up the webinar, Professor Miller reiterated that in this ongoing wave of data-driven, machine-learning-based AI in the workplace, human work would not be eliminated any time soon. While some jobs would certainly be replaced by automation, the large majority would continue to exist in an enhanced and even more productive manner. He did, however, caution that while improvements in AI methods and technology were developing fast, the deployment of AI within organisations was often a slow and complex process.

He concluded by saying that the real threat didn't come from AI taking away jobs but rather by people resisting to partner with it. Organisations would therefore need to learn how to seriously consider what AI can do for them – not just in the area of labour displacement and manpower cost savings, but also in creating value that leads to new demand and new employment opportunities.

And to ensure employee buy in: “They need to ensure that the benefits of increased productivity and value creation are shared with their employees. They are the ones using the new technology to achieve gains for the company.”

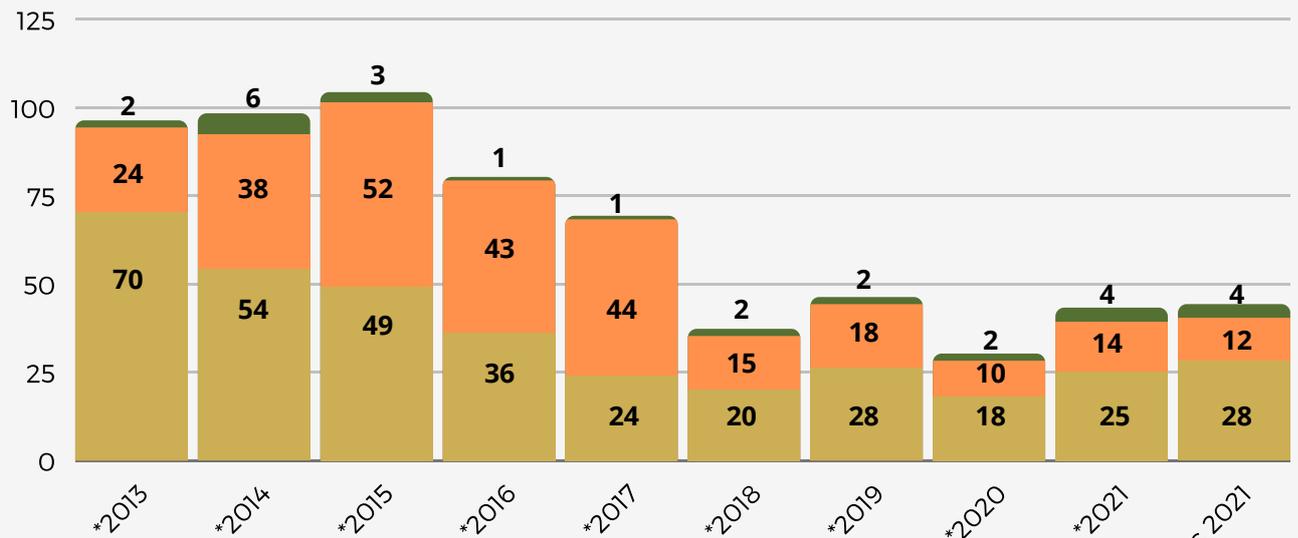


Steven MILLER
Professor Emeritus
Professor Emeritus of Information Systems

NUMBER OF ATTENDEES: SPEAKER SERIES AND TRACKS INFORMATION SESSIONS

SPEAKER SERIES	NUMBER OF SESSIONS	NUMBER OF ATTENDEES
<ul style="list-style-type: none"> • Agri-Commodity Trading • Geopolitical Risks & their Impact on Shipping & Trade Flows • Upstream & Downstream of LNG • Basics of Trading and SGX Ecosystem • Entering into the World of Commodity Trading (A Consultant Perspective) • Panel (Celebration of woman in tech trade) • Corporate sustainability – For love or beyond? • Managing Innovation in the Digital Economy • Working with AI-Enabled Smart Machines • Dry Bulk Shipping – Best year in a decade after a year of the pandemic • Iron Ore Value Chain • Maritime and Logistics Management • Commodity and Energy Trading • Digitalization & Process Optimisation 	14	987
TRACK INFORMATION SESSIONS	NUMBER OF SESSIONS	NUMBER OF ATTENDEES
Know-Thy-Commodities (MMS FLAGSHIP EVENT)	2	118
Know-Thy-Major Operations Management & Finance	4	360
TOTAL	20	1,465

STUDENT TRACKS ENROLMENT AS OF 31 DEC 2021



Legend

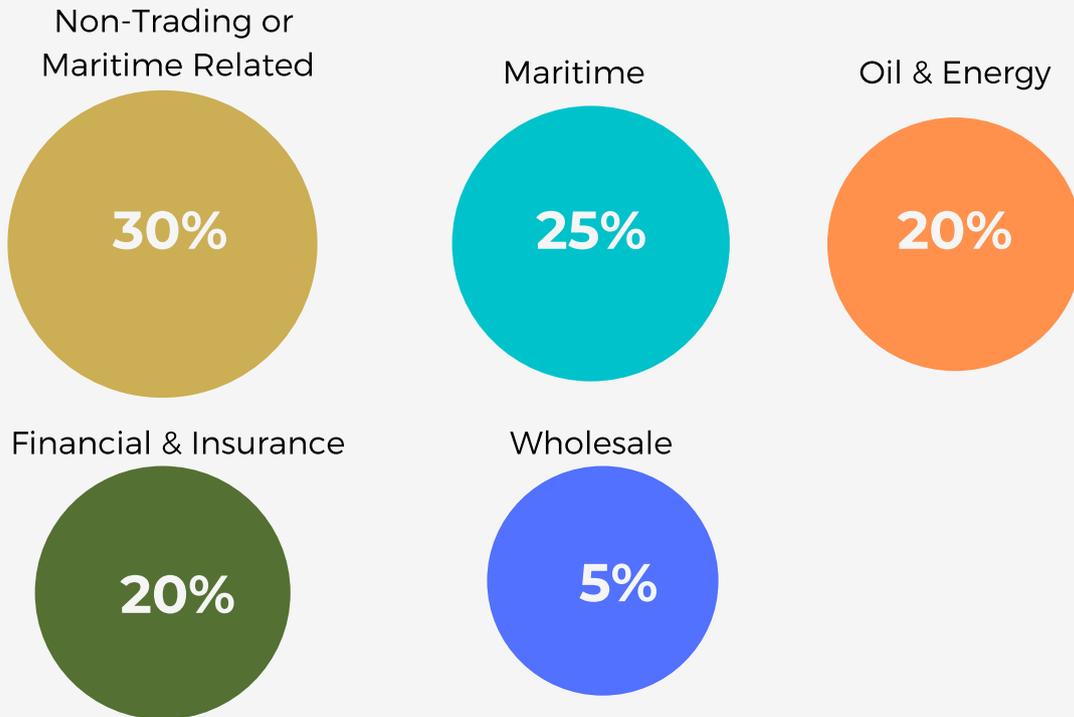
- ITT
- MBOT
(Changed in 2018 from MET)
- ITT & MBOT

***The data shows the enrolment numbers in a specific year.**

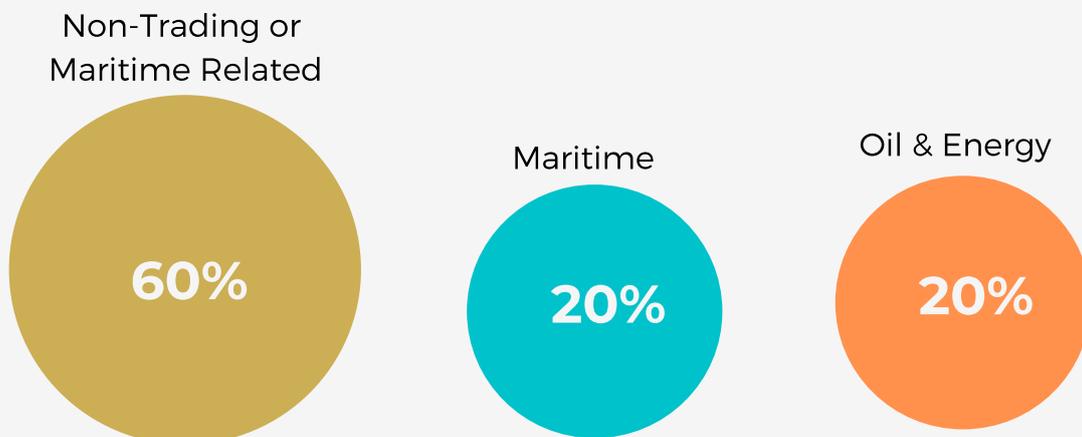


Current Student No. as of 31 Dec 2021

OVERVIEW OF ITT INTERNSHIPS AS OF 31 OCTOBER 2021



OVERVIEW OF MBOT INTERNSHIPS AS OF 31 OCTOBER 2021

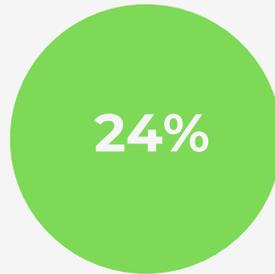


OVERVIEW OF ITI GRADUATES PLACEMENT AS OF 31 OCTOBER 2021

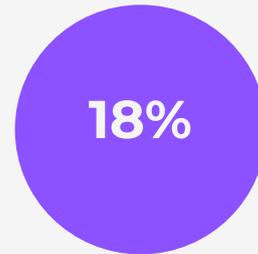
Financial & Insurance



Shipping & Logistics



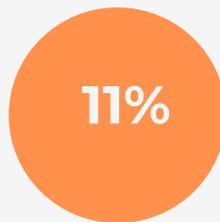
Agri-Commodities



Non-Trading or
Maritime Related



Oil & Energy



Trade
Services

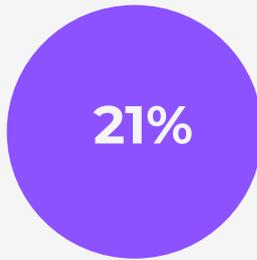


OVERVIEW OF ITT GRADUATES PLACEMENT AS OF 31 OCTOBER 2021

Financial & Insurance



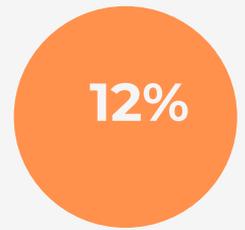
Agri-Commodities



Non-Trading or
Maritime Related



Oil & Energy



Shipping & Logistics



N.A



Trade Services



OVERVIEW OF MET GRADUATES PLACEMENT AS OF 31 OCTOBER 2021

Shipping & Logistics



Non-Trading or
Maritime Related



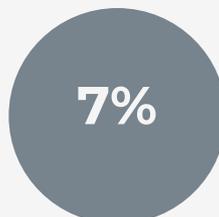
Financial & Insurance



Agri-Commodities



N.A.



Oil & Energy





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