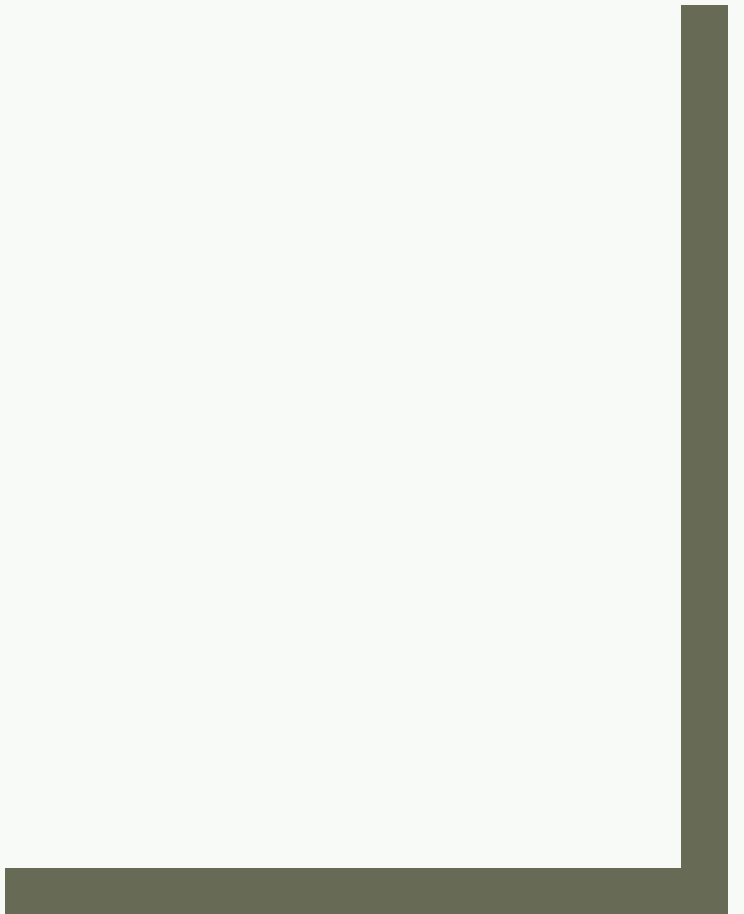
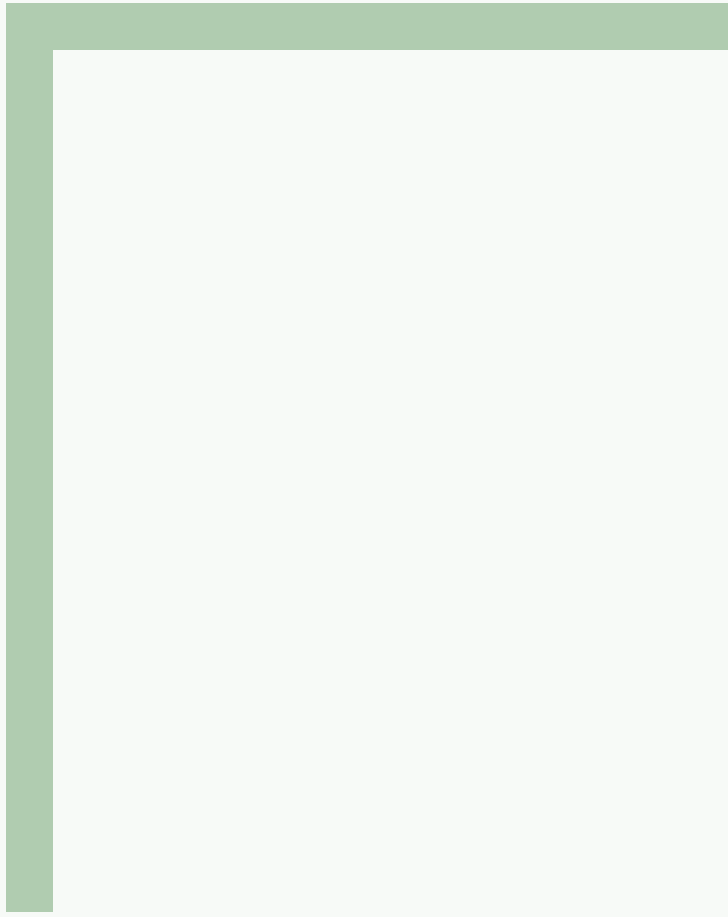




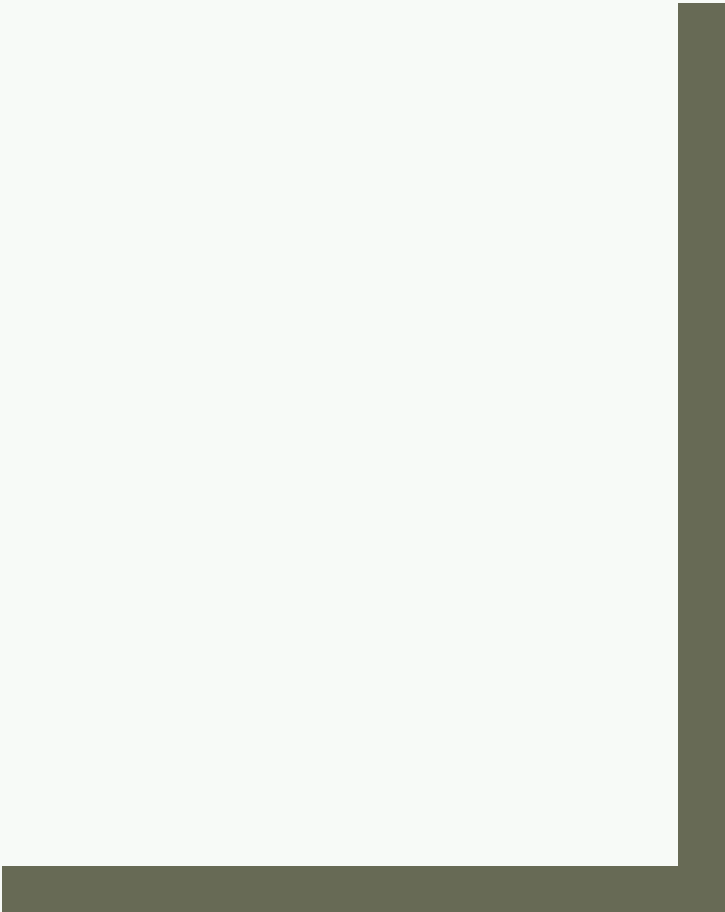
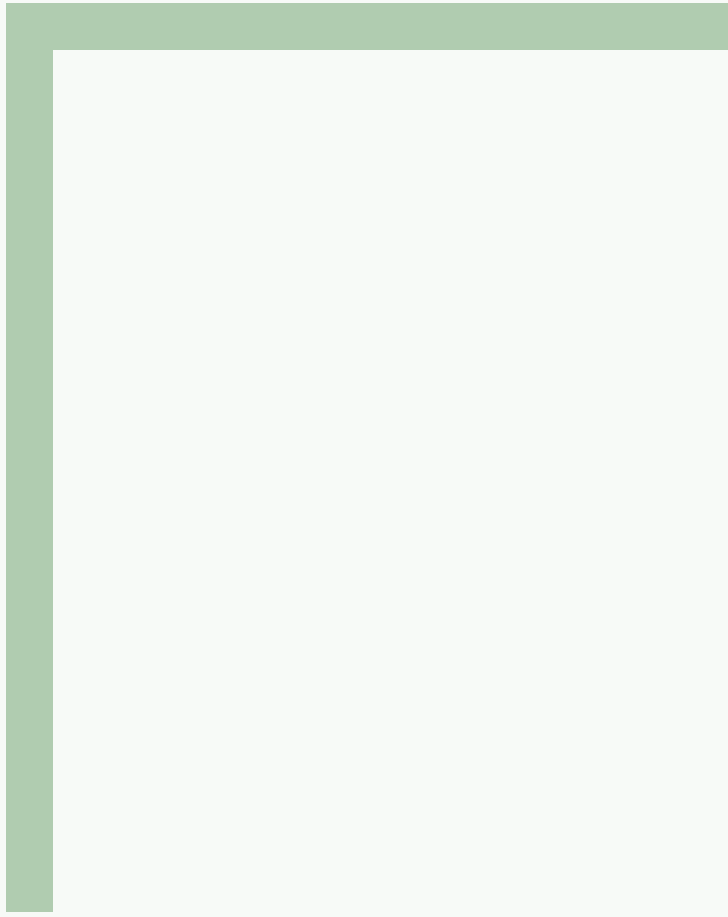
Open Up To The World Of **TRADING AND MARITIME**

Annual Report 2020



Content

Singapore Management University_____	Page 4
The International Trading Institute_____	Page 5
LKCSB Finance & Operations Management (Area Coordinators)_____	Page 7
Industry Partners_____	Page 8
ITT & MBOT_____	Page 9
MaritimeOne Scholarship Recipients_____	Page 21
MPA Research Fellow_____	Page 22
MPA Stewardship_____	Page 24
Articles (Associated with ITI)_____	Page 28
Other Articles_____	Page 31
Media Links_____	Page 32



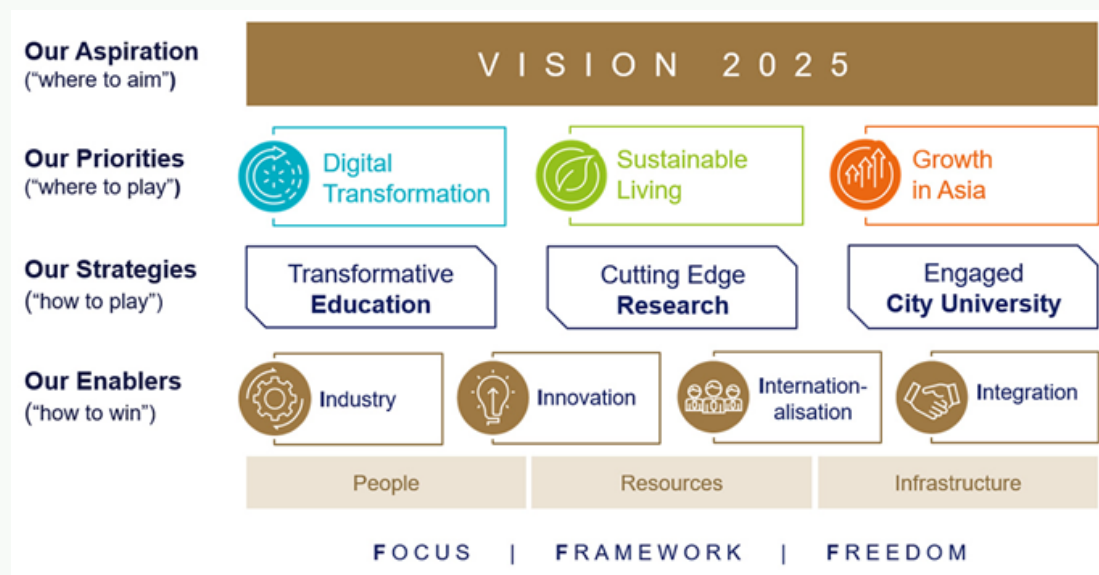
Singapore Management University



The Singapore Management University (SMU) is a premier university in Asia and is internationally recognised for its world-class research and distinguished teaching. Established in 2000, SMU's mission is to generate high impact leading-edge research and produce creative and entrepreneurial leaders for the knowledge-based economy. SMU's emphasis on industry-centric and interdisciplinary learning is also widely recognised.

SMU 2025: GROWING IMPACT, CULTIVATING CHANGE

Together, this constitutes our university strategic plan. It gives us focus, provided in the form of a framework of strategies and enablers, with specific strategic and enabling initiatives to carry through the Vision, within which there is freedom to come up with new ideas and initiatives.



THE INTERNATIONAL TRADING INSTITUTE

The International Trading Institute at Singapore Management University (ITI@SMU) was formed as part of a tripartite initiative between the government, through the Enterprise Singapore (ESG), leading industry partners and the Singapore Management University. The first trading institute in the world to be set up within a university, it is Singapore's premier platform for leadership and talent development in the areas of maritime knowledge and international trading.

ITI@SMU's key objectives are:



Creating value for 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 new lifelong learning 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.



Annie KOH

Emeritus Professor of Finance (Practice)

Senior Academic Advisor, International Trading Institute

PhD International Finance, New York University, 1988

M Phil International Finance, New York University, 1985

Bachelor of Social Science & Economics (Hons) National University of Singapore, 1976

Monetary Authority of Singapore Scholar, 1975

The International Trading Institute Team



Melinda TAN
melindatan@smu.edu.sg



Sarah GRANT
sarahgrant@smu.edu.sg



Jolene TAN
jolenetanfr@smu.edu.sg

The COVID-19 pandemic has severely disrupted global economic activity, with a huge impact on supply chains for businesses in Singapore and around the world. While economies start to re-open and trade demands are picking up, it is also clear that things will not go back to pre-COVID-19 days. There is no doubt that business models have changed, with the need to leverage innovation and technology solutions to ensure business continuity.

We at SMU, like the rest of the local tertiary institutions, have also had to adjust our learning/teaching approach in these trying times. The current academic term started in August with the majority of our courses being taught fully online and a small proportion taught in a face-to-face hybrid mode where classes are conducted simultaneously on campus and online. This is to ensure the well-being and safety of our students, staff and faculty, while at the same time allowing students to continue with their academic progress. This arrangement was reviewed during the mid-term, following which a small number of classes with low enrolment are now taught on campus, whilst keeping student numbers within the stipulated safety limits. We will continue to take advice from our national agencies and adjust our mode of teaching as the situation evolves.

ITI@SMU will continue our efforts to deliver impactful value for the trading and maritime sectors. In this report, you will read about the eventful programmes that were part of our efforts to develop and grow Singapore's trading and maritime ecosystem.

All our accomplishments would not have been possible without our friends and partners from fellow educational institutions, industries and the government who continued to believe in us. We would like to extend our heartfelt gratitude for all their unwavering efforts and support in this journey throughout 2020.

We hope that you will enjoy reading this report as much as we have enjoyed putting it together.



Joe Zhe ZHANG

(Finance Area Coordinator)

Associate Professor of Finance

Ph.D. in Finance,

University of Iowa

Profile of Associate Professor Zhang

Access URL <https://bit.ly/34FgJ46>



ZHENG Zhichao Daniel

(Operations Management Area Coordinator)

Assistant Professor of Operations

Management

Ph.D.in Management,

National University of Singapore

Profile of Assistant Professor Zheng

Access URL <https://bit.ly/3oIWZVA>

All that we have achieved in the past year would not have been possible without our industry partners' strong and unwavering support. We appreciate that they have walked together with us in our journey to develop Singapore's trading and maritime ecosystem.

Company Name

ABN Amro Bank N.V.
Adani Global Pte. Ltd.
Aramco Trading Singapore Pte Ltd
Aries Fertilizers Group Pte Ltd
Bright Point Trading Pte Ltd
Bunge Asia Pte Ltd
China Oriental Singapore Pte Ltd
Diamond Gas International Pte. Ltd.
Emirates National Oil Company (Singapore) Pte Ltd
ExxonMobil Asia Pacific Pte Ltd
Itochu Petroleum Co (Singapore) Pte Ltd
Klaveness Asia Private Limited
Koch Refining International Pte Ltd
Lee Foundation
LH Trading
Lobb Heng Pte Ltd
Mercuria Energy Trading 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
Wilmar International Limited



In partnership with Lee Kong Chian School of Business (LKCSB), ITI@SMU supports and oversees the International Trading Track (ITT) and Maritime Business & Operations Track (MBOT).

These specially designed programmes are curated to equip our students with the necessary skills and knowledge required to hit the ground running when they join the trading and maritime sectors. Both programmes were designed with inputs from various stakeholders, including industries, government agencies and university academics. Such contributions have been invaluable in ensuring that the ITT and the MBOT continue to remain relevant to stakeholders from both sectors.

The ITT and MBOT learning experience includes a mix of classroom sessions and experimental learning opportunities to balance academic insights and practical examples from the working world practitioners.

A unique aspect of the ITT and MBOT are the various experimental learning opportunities provided by ITI@SMU. These play a vital role in the development of student talent, allowing them to develop first-hand knowledge of the intricacies of the two sectors.

Such learning opportunities include Industry Study Missions (ISMs), site visits to companies operating in the trading and maritime industries, internships, and talks delivered by industry practitioners.

ISMs play a crucial part in the students' learning journey as they provide an opportunity to observe and learn about the various operational nuances when operating on the ground. In 2020, due to Covid-19, we had to put all overseas and local visits on hold to safeguard our students' well-being and safety. ITI@SMU will resume the myriad of learning opportunities for students to visit many world-class developments when the situation improves.

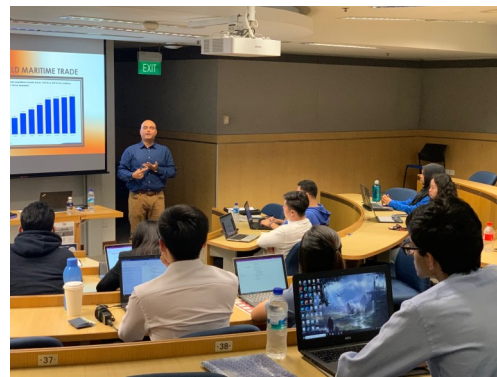
To augment classroom learning, the students also had the opportunity to attend a series of guest lectures covering topics that impact the trading and maritime sectors through ITI@SMU's Industry Speaker Series.

These practitioner-led sessions enhance learning as the trainers can draw on relevant personal experiences to bring debates to life and create resonance with students. These lectures cover a wide range of topics, including technology, risk, and liner shipping amongst many others.

To ensure that the students on the ITT and MBOT benefit from a holistic learning experience, ITI@SMU organises a variety of networking events and guest lectures to complement the knowledge that students acquire in the classroom. However due to Covid-19, we stopped organizing site visits and on-premises networking events due to the Singapore government's introduction of safe distancing measures.

CHANGING GEOPOLITICAL RISKS AND THE IMPACT ON SHIPPING TRADE FLOWS (30 JANUARY, 3 AND 6 FEBRAUARY 2020)

Mr Punit Oza, Director of Klaveness Asia Pte Ltd, shared with students details on how and what geopolitical risks and events would impact trade and shipping.



DIGITALISATION IN THE SHIPPING INDUSTRY (31 JANUARY 2020)

Mr Vivek Kumar, Managing Director of Western Bulk, shared with students on how digitalisation and the use of data could have a huge impact on the shipping industry. Students were also privileged to view the “live” system used by Western Bulk.





CONTAINER LINERS (7 FEBRUARY 2020)

Mr Lars Christiansen, Senior Managing Director of Hapag-Lloyd, gave students an overview of the global liner trade, on the emphasis on ASEAN.

Students learned the latest trends and disruptions in the container liner shipping industry. Mr Christiansen also used real-life examples to show students how companies adopt digital technology in the container liner trade.

**MARITIME
MERCHANTS
SOCIETY**

**KNOW-THY-COMMODITY
2020**





<p>Dear Alumni/Guests,</p> <p>You are invited to the Know-Thy-Commodities primer presentations.</p>	<p>Researched Markets: Gold LNG Hogs</p> <p>Venue: TBC</p> <p>Date: 6th March, 7:00PM – 9:00PM</p>
---	---

KNOW THY COMMODITIES 2020 - Primer and Networking (6 March 2020)

The SMU Maritime Merchant's Society Student's Club organizes the "Know-thy-Commodity" event every semester. The audience includes industry partners, trainers, SMU ITI and MBOT students, other SMU students and alumni who will offer their comments and questions.

The programme included the Maritime Merchant's Society Student presentation on their findings on the history, demand and supply trading strategies, valuation and overall outlook of Gold, LNG and Livestock (Hogs). The student club also invited the SMU ITT or MBOT alumnus to share their insights into the ITT and MBOT courses.



Credit Mitigations in Trade Finance

Mark Tan

March 2020

TRADE INSURANCE IN TRADE FINANCE (6 MARCH 2020)

Mr Mark Tan, Managing Director, and Head of the Commodities Group at ING spoke about Trade Insurance in Trade Finance.

Students learned what is trade insurance and the mechanism, the benefits of trade insurance, as well as how trade insurance work with trade finance.



ICS Headquarters



THE NEXT WAVE - THE FUTURE OF INTERNATIONAL TRADING (13 MARCH 2020)

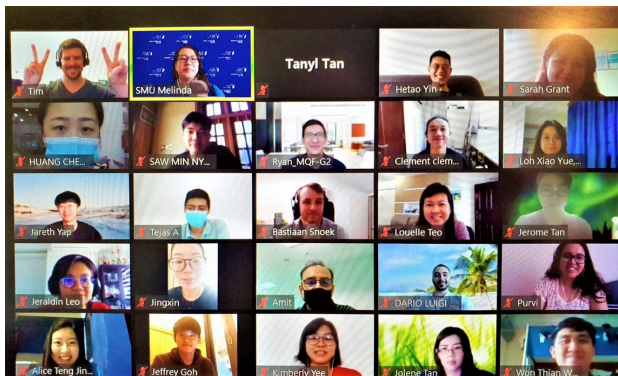
Mr Esben Poulsson, Chairman and Director of the International Chamber of Shipping, spoke about the future of International Trade.

Students were educated on regulatory challenges caused by the challenging trading environment in the Maritime industry, and the impact of fast-changing technologies. Students were keen to purchase Esben's autographed book



WEBINAR: COVID19 ON GEOPOLITICS AND THE IMPACT ON SHIPPING ROUTES (6 MAY 2020)

Mr Punit Oza, Director of Klaveness Asia Pte Ltd, was a guest speaker in an inaugural ITI@SMU webinar. He spoke on the current geopolitical risks and the impact on shipping trade flows. The webinar was well attended by students and industry partners.



WEBINAR: DIGITALIZATION & MARITIME SUPPLY CHAINS (28 AUGUST 2020)

Mr Tim Polson, Asia-Pacific Business Development Manager of Klaveness Digital, highlighted to students that digitalization is the next key trend in the maritime industry. The session provided students with general coverage of the digitized Maritime Industry, the trends to watch out for, and commercial insights to help them improve academic

work and find the maritime career that best suits them.

Choosing your major?

Which major should I take?

What can I learn from this major?

LKCSB FACULTY CAN HELP

Communication Management Tracy Loh	Entrepreneurship Kenneth Goh	Finance Aurobindo Ghosh Chiraphol New Chiyachantana Karen Gan
Marketing Seshan Ramaswami (Term 1) Patricia Lui (Term 2)	Operations Management Joyce Low Feng Gulyun	Organisational Behavior & Human Resources Rani Tan Ma Kheng Min
Quantitative Finance Zhao Yibao	Strategic Management Cyndi Zhang Whitney Zhang	Sustainability Ted Tschang

Visit us at:
<https://business.smu.edu.sg/business/programmes/bachelor-business-management/academic-advisors>

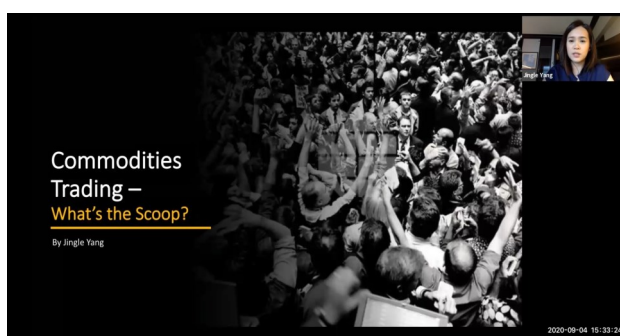
SMU SINGAPORE MANAGEMENT UNIVERSITY

Lee Kong Chian School of Business

bondue SMU BUSINESS SOCIETY

KNOW THY MAJOR TALKS - FINANCE SESSION AND KNOW THY MAJOR - OM MAJOR (MBOT) (1 & 3 SEPTEMBER 2020)

ITI@SMU participated in the Lee Kong Chian School of Business Know Thy Major Series on the Finance and Operations Management Majors, organized by the Bondue, SMU Business Society (a student club). The session started at 7pm with an opening address by the Academic Development Director of Bondue, followed by sharing from the Major's Course Advisors, Professor Annie Koh from ITI, Academic Club, and ended with a Q&A session at 9pm. The sessions enabled students to make more informed choices about their majors.



WEBINAR: COMMODITIES, WHAT'S THE SCOOP? (4 September 2020)

Ms Jingle Yang, a Senior Commodities Trader of Olam, shared with students her career path of becoming a trader after working several years in a bank. Jingle walked the students through a typical day of a trader, the job requirements, the usual working schedule, and the pressures of a profit-

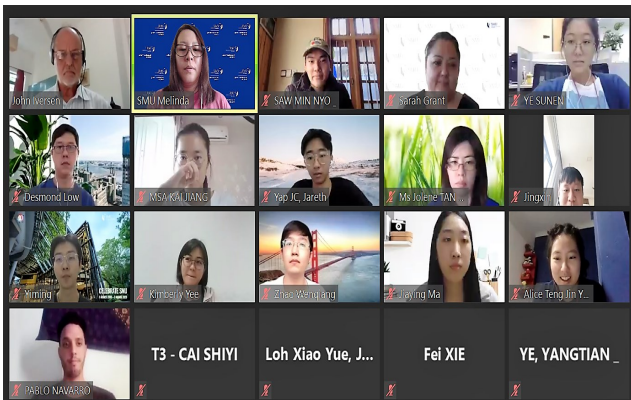
driven environment. She stressed the suitability of female traders in the field and how she could juggle both the job and being a mother to a child with special needs.



WEBINAR: SUSTAINABILITY, WORKING TOWARDS A LOW CARBON FUTURE (9 & 10 September 2020)

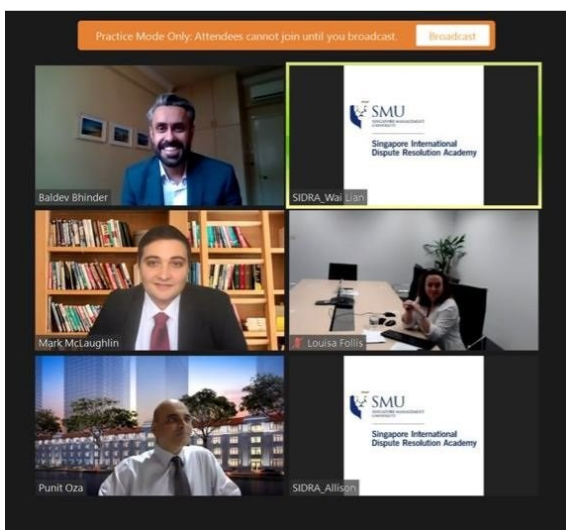
Four speakers from Shell shared with students the need for sustainability in the oil and gas industry, and their ambition to have a net-zero carbon emission.

Students learned about analytical perspectives on global issues, the need to change the energy mix of the world to 80% renewable energy, and that everyone should take steps to minimize carbon footprint.



WEBINAR: PROJECT LOGISTICS, WHAT'S THAT ABOUT (11 SEPTEMBER 2020)

Mr John Iversen spoke about Project Logistics. Students learned the difference between project logistics and container logistics. They also understood the planning requirements under Project Logistics, through the case studies demonstrated by the speaker.



SIDRA-ITI WEBINAR - BELT & ROAD INITIATIVE: MARITIME SILK ROAD (17 SEPTEMBER 2020)

ITI@SMU and the Singapore International Dispute Resolution Academy (SIDA) were pleased to present a webinar on the Belt and Road and the Maritime Silk Road. It was a very engaging discussion with Baldev Bhinder, Punit Oza, Louisa Follis, and Mark McLaughlin. Students learned about the commercial perspectives on the BRI concerning trade and business, dispute resolution, and future developments.



Blocks such as Swaps, Future, Options, and the different risk management hedging strategies. The session included case studies and group exercises by applying risk management principles. Students also learnt new trends in the trading marketplace.



the market. Students learned the main characteristics and dynamics of the short sea trades, and how they differ from those of the traditional deep-sea trades.



also included the Maritime Merchant's Society students' presentation on their findings on the history, demand and supply trading strategies, valuation and overall outlook of Crude Oil and Lithium. The student club also invited the SMU ITT or MBOT alumnus to share their insights into the ITT and MBOT courses.

Non-Credit
Courses /
Industry
Speaker
Sessions

- Geo-political Risks and Their Impact on Shipping Trade Flows (Jan 2020)
- Digitalisation in the Shipping Industry (Jan 2020)
- Container Liner Shipping (Feb 2020)
- Future of Shipping (March 2020)
- Credit Mitigations in Trade Finance (March 2020)
- Impact of Covid19 on Geopolitical Risks (May 2020)
- Digitalisation & Maritime Supply Chains (Aug 2020)
- Sustainability: Working Towards a Low-Carbon Future (Sep 2020)
- Commodities, What's the Scoop (Sep 2020)
- Project Logistics – What's that About? (Sep 2020)
- Financial Risk Management (Sep 2020)
- Container Shipping – Dive into the Dynamics of Short Sea Shipping (Oct 2020)

Experiential
Learning

- Know-Thy Commodity (March 2020)
- Know-Thy Major (Sep 2020)
- Know-Thy Commodity (Oct 2020)
- Internship Opportunities (Ongoing)

Outreach for
students

- Networking with CBS Students (Jan 2020)
- Info Session to Finance Students (Sep 2020)
- Info Session to Operations Management Students (Sep 2020)



Bon Seah
Junior Trader - COFCO International
Graduated in May 2018

Quote by

Bon Seah, pursued the ITT/MET:

"The SMU ITT/MET curriculum is tailored to equip the next generation with the right mindset and skillset to add sustainable value into the global trading hub of Singapore. I have been blessed with many opportunities to have found a profession that challenges me everyday."



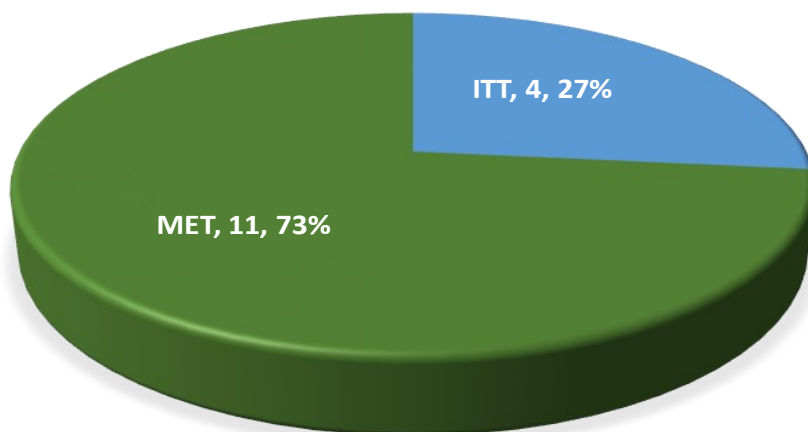
[Photo: Undergraduates from SMU's Maritime Economics Track and Maritime Business Operations Track (MBOT)– (from left) Tan Jing Yi, Foong Lai Yi, Aditya Rayakar, Vivian Tay Ya Wen and Goh Zhong Hui.]

Quote by

Goh Zhong Hui, pursued the MET:

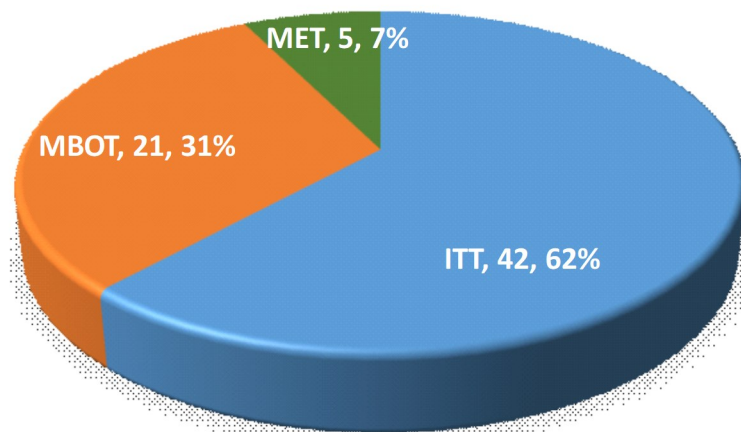
"The vastness of the maritime industry and its role as one of the pillars of the global economy piqued my interest to pursue a career in this line of work. As a final year student who is about to begin my career, this scholarship brings exposure and provides a platform for me to connect with like-minded individuals who are eager to excel."

2020 - ITT and MET Graduation Record



Total: 15

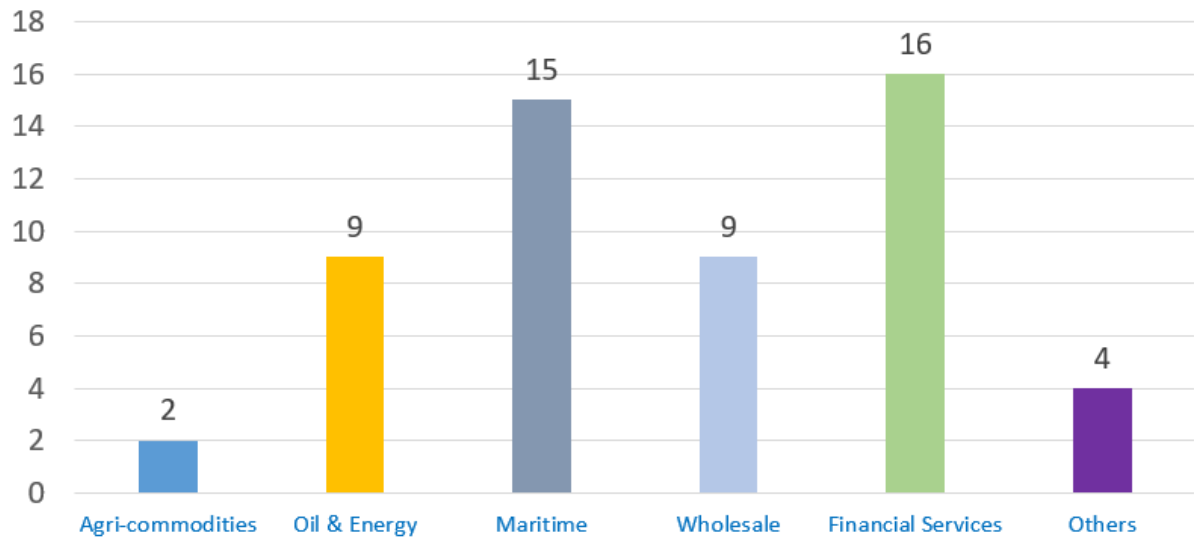
Active Students AS of 31 October 2020



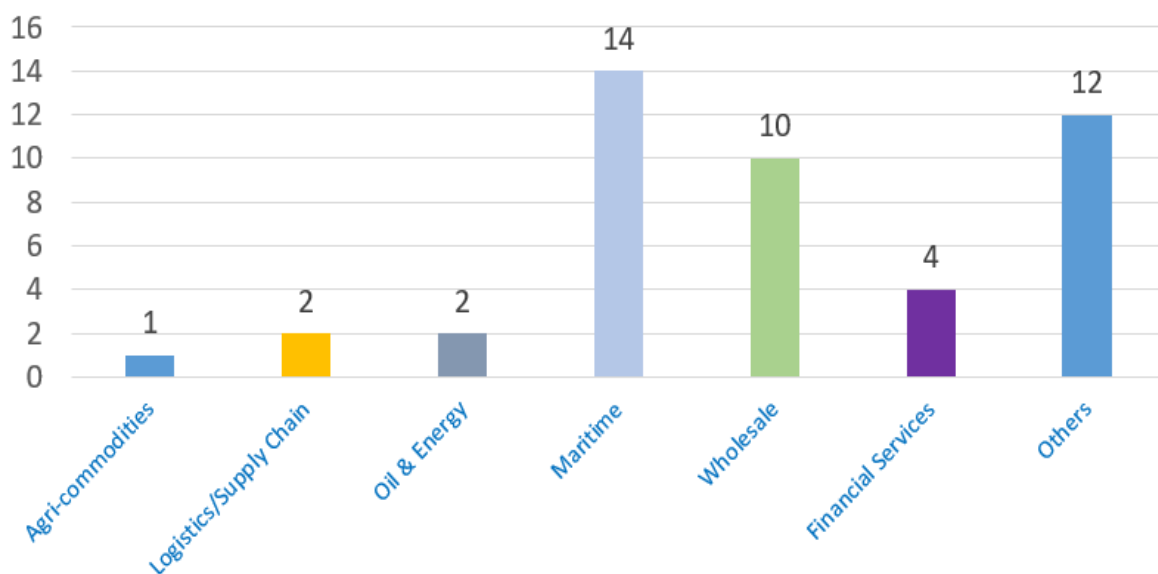
Total: 68

2019/ 2020 Internship by Sectors

ITT Internship (Total: 55)

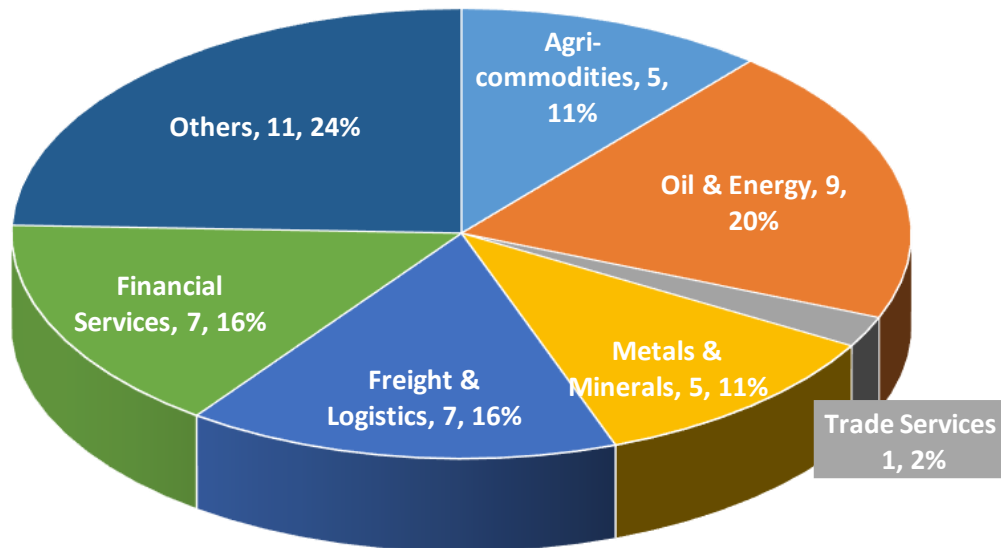


MET/ MBOT Intership (Total: 45)

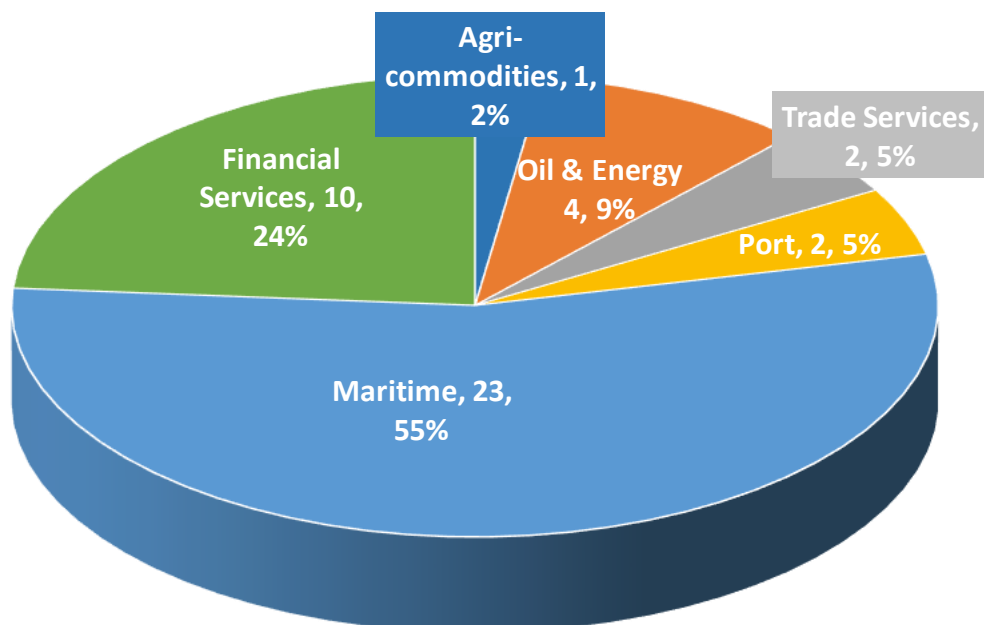


2019/ 2020 Graduates Placement

ITT Graduates Placement (Total: 45)



MET Graduates Placement (Total: 42)



MARITIMEONE SCHOLARSHIP RECIPIENTS

MaritimeOne Scholarship Recipients

Our SMU students participated in the MaritimeOne Scholarship, and the following four are the MaritimeOne Scholarship Recipients.





Joyce LOW Mei Wan

Assistant Professor of Operations Management (Education)

Maritime and Port Authority of Singapore (MPA) Research Fellow .

Profile of Assistant Professor LOW

Access URL <https://bit.ly/3828YY5>

ITI@SMU: Tell us something about yourself.

Prof Joyce Low: I am an Assistant Professor in Operations Management under the education track. My research interest lies primarily in the field of Maritime Operations, Aviation Management and Transportation Economics.

ITI@SMU: What does the MPA Research Fellowship mean to you?

Prof Joyce Low: Over the last decade, I have been working on topics pertaining mainly to port competitiveness and inter-port competition. MPA Research Fellowship provides me with the opportunity to explore other maritime-related areas beyond my existing research areas.

ITI@SMU: What areas of research are you working on funded by the MPA Fellowship?

Prof Joyce Low: Currently, I am looking into smart ports.

ITI@SMU: Why do you think MBOT is important for the students and faculty like yourselves?

Prof Joyce Low: The maritime industry is a significant one that contributes 7% to Singapore's GDP. MBOT track imparts domain knowledge on important business operational management aspects of the maritime sector through courses such as port-focal logistics and maritime operations, shipping business, logistics and transportation and business analytics to our students. In addition, students will be introduced to maritime-related industry job roles through non-credit classes taught by industry practitioners, which range from tanker chartering and ship brokering to applications of data analytics and how robotics and automation are applied in the maritime sector. They will also have opportunities to gain industry exposure through internships, overseas Industry Study Missions and local site visits, where they learn about the various operational intricacies which provide maritime companies with their competitive edge.

The MBOT track gives recognition to faculties like me who are working on specialized areas in maritime operations management. Having the MBOT track confirms that maritime has its place in the university, and this is helpful when we talk to our international research collaborators.

ITI@SMU: Moving forward, what would you like to work on in the industry?

Prof Joyce Low: It would be the harnessing of technology to further improve the operations efficiencies and enhance the competitiveness of the maritime sector.



Marcus ANG Teck Meng

Associate Professor of Operations Management (Education)

Maritime and Port Authority of Singapore (MPA) Research Fellow, 2019 - 2020.

Profile of Associate Professor ANG

Access URL <https://bit.ly/2Gkgz9b>

ITI@SMU: Tell us something about yourself.

Prof Marcus Ang: I am a faculty of the Operations Management department in the Lee Kong Chian School of Business (LKCSB). Integrating my research with industry practices and teaching has always been my passion.

ITI@SMU: What does the MPA Research Fellowship mean to you?

Prof Marcus Ang: The MPA Research Fellowship gives me an opportunity to look at research problems in the maritime area. It has also prompted me to look at ways to convey these to students in my teaching.

ITI@SMU: What areas of research are you working on funded by the MPA Fellowship?

Prof Marcus Ang: I am looking at the capacity management problem in ports.

ITI@SMU: Why do you think MBOT is important for the students and faculty like yourselves?

Prof Marcus Ang: It gives some funding to the faculty to do some related research. These research can be beneficial to the students when converted to case studies.

ITI@SMU: Moving forward, what would you like to work on in the industry?

Prof Marcus Ang: With the current technology in the business landscape, business analytics has become a necessary component for companies to maintain a competitive advantage. I hope to work on data-related problems and derive interesting insights which benefit the research community and the industry.

Chair/Professorship/Fellowship Title: MPA Professor in Maritime Business

Faculty Name: Professor Henrik SORNN-FRIESE

Faculty Title/School: Visiting Professor, Lee Kong Chian School of Business

The Lee Kong Chian School of Business (LKCSB) at SMU would like to thank MPA for their kind support towards the setting up of the MPA Chair in SMU. In AY19/20, Professor Henrik Sornn-Friese was appointed as the Distinguished Visiting Professor to:

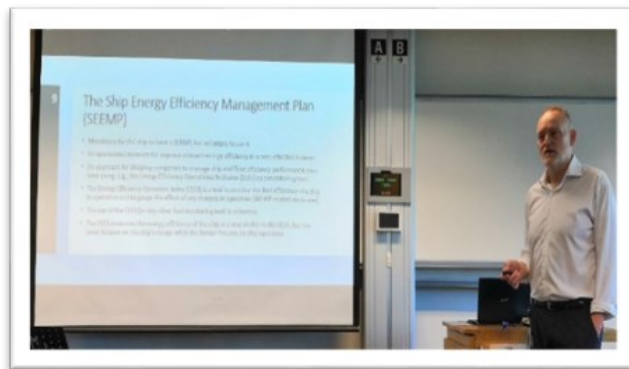
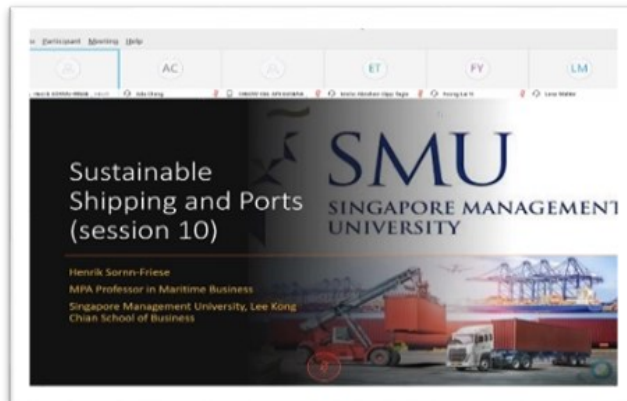
- ✓ Teach one maritime-related course for the undergraduate programme.
- ✓ Help resident faculty in building maritime expertise by collaborating in research and developing educational material, especially with the LKCSB MPA research fellowship holders.
- ✓ Provide mentorship for the existing faculty teaching maritime courses in improving the content and delivery of their courses.
- ✓ Conduct a seminar to introduce the state-of-the-art maritime issues in practice and in academia to SMU faculty.

With inputs from MPA, LKCSB was honoured to invite Professor Henrik Sornn-Friese to be the first MPA Professor in Maritime Business for AY2019/20.



Professor Henrik SORNN-FRIESE

Henrik Sornn-Friese is currently the Associate Professor of Strategy and Innovation at Copenhagen Business School (CBS). He is also the Director of CBS Maritime, a strategic platform at CBS for developing research, teaching and counselling on the maritime industry. Professor Henrik is also a board member of the MDC (Maritime Development Centre) and a member of Danish Maritime's think tank on Sustainable Development. He is Co-Director of The Green Shipping Project between 19 universities in Asia, Europe and North America and co-founder of Maritime Research Alliance. The latter is a new initiative for bringing together Danish universities, maritime academies and marine engineering schools in collaborative research on decarbonisation, automation, and data-driven growth in the maritime industries. His research focuses on economic geography (industry clusters, business eco-systems, trade and connectivity), strategy (capabilities, commercialization, company growth, organizational change, business model innovation, industry evolution) and business history. He is author or co-author of several books about shipping and numerous articles in leading international journals. His works on the Danish maritime cluster has influenced contemporary Danish maritime policy.



Sustainable Shipping and Ports

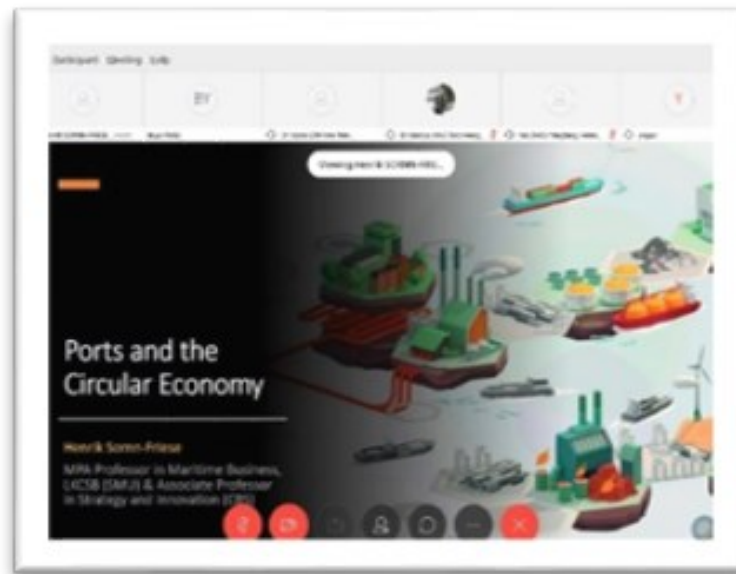
LKCSB was privileged to have Professor Henrik teach the undergraduate module "Sustainable Shipping and Ports". This module covered topics like sustainability in shipping and ports, ship recycling and innovation for sustainability shipping.

The SMU and CBS exchange students attended the class and learned about the sustainability imperative for shipping and ports, and the various solutions available to the different stakeholders. They developed a deeper understanding of the impact that climate and environment have on shipping and ports. They could identify and evaluate the different technologies and organizational solutions to specific sustainability challenges.

Quote from **Lene Mahler, CBS Exchange Student, 2020**



I really enjoyed Professor Henrik's style of teaching because to me it was the perfect mix of in class and self-taught learning. He motivated us to have in class discussions, which really helped do widen one's horizon and get to understand and learn more opinions and possibilities on certain topics and developments. The group work helped to get different perspectives and adapt those into one big conclusion. This also helped to be more critical, but at the same time be open minded to summarize texts from our homework and take them a step further and to critically analyse them with possible new solutions."



Ports and the Circular Economy

Professor Henrik also shared his knowledge on "Ports and the Circular Economy". Due to the current Covid-19 pandemic, this was conducted online on Friday, 03 April 2020, with LKCSB faculty and other guests joining the session.

Participants learned about the clear transition towards a circular economy (CE), where materials and components are reused or recycled at the end of their lifecycle (EOL). Ports that serve as transport nodes and locations for logistics and manufacturing activities are affected; the transition towards CE, that led to a decline in volume of non-renewable primary resources (de Langen and Sornn-Friese, 2018), and non-fossil maritime transport flows will impact the shift of supply chains from current globalized and linear structures to more localized and circular ones. The trend towards circularity also offered an opportunity for ports to diversify, via attracting circular activities (Carpenter et al., 2018).

In an overview of new investments in circular manufacturing activities in Europe ports, based on primary data from organizational reports and official web pages, the (slow) development of circular activities in ports were apparent to the participants. Professor Henrik also explained its relevance in assessing if and how the circularity trend might affect the role and business model of port authorities. For example, a developer of a port cluster, building a framework for analysing the consequences of CE on the business models of port authorities, could apply the same framework to the Port of Amsterdam (PoA), which is leading in the transition of European ports towards CE.

Professor Henrik met up and shared his knowledge with faculty members, and students from the postgraduate and undergraduate classes. His sharing has enabled both students and the LKCSB faculty members to develop a deeper understanding of international shipping and ports.

Mentorship

Professor Henrik has provided invaluable inputs for the “Port-focal Logistics and Maritime Operations” UG course, which improved its content and delivery. “Port-focal Logistics and Maritime Operations” course is a new course developed as a core module for students in the Maritime Business and Operations Track. The course recognizes that port operations are a complicated business dealing with a wide range of cargoes with specific handling and storage requirements, several disparate activities such as the movement of ships, containers, and other cargo, the loading and unloading of ships and containers, and customs activities. “Port – Focal Logistics and Maritime Operations” course aimed to equip students with knowledge on port operations and how ports can provide value in the modern supply chain involving shipping lines, stevedores, port operators and the regulators. While the course focuses on port operations and the role of ports in a seaborne supply chain, it also attempts to introduce technicalities such as ship design and port navigation to the students.

Research Collaboration

Faculty members Professor Lieven Demeester and Professor Joyce Low researched the role of ports in the circular economy. They investigated the impact of new recycling technologies and regulatory environments of the trade flows of waste streams (such as paper, plastic, ferrous and non-ferrous metals) by sea. The estimation of growth in regional or global shipments is of particular concern in the investigation. There were sharing, exchange of ideas and domain knowledge sessions held with Professor Henrik, because of his expertise and research interests in the circular economy. SMU is also exploring possible research collaborations with Professor Henrik and CBS in general.

Related to this, discussions to transfer the institutional partnership in Green Shipping Project (GSP) from the School of Economics to the Lee Kong Chian School of Business are underway. GSP is managed jointly by Copenhagen Business School (CBS) Maritime, the Centre for Transportation Studies at the Sauder School of Business (SSB), the University of British Columbia (UBC), and the Simon Fraser University. This is a six year project (of which three years have passed) in partnership with 19 top-universities in Asia, Europe and North America, as well as many maritime companies and organizations. The researchers involved in the partnership come from different disciplines and research fields, including business, economics, economic geography, political science, and engineering. Many of these researchers are leaders within their fields. In addition to the very strong international network, the partnership offers some funding opportunities for partners, based on the annual project proposal. Funding could cover data purchases, hiring of research assistants, workshops and conferences etc. Proposals go through an approval procedure, carried out by the project management team consisting of Professor Henrik (the MPA chair in AY 2019/2020), Professor David Gillen from SSB (as the director and principal investigator), Associate Professor Peter V. Hall from the Urban Studies Program at Simon Fraser University (as the co-director), and Research Director Jane Lister (also from SSB). Participation in the workshops organized under this project provides opportunities for SMU to showcase the maritime research activities in our group. The partnership is also likely to open up avenues for international research collaboration.

Gearing Up in an Age of Rapid Changes

Human Capital Development for Industrial Transformation

In an era of rapid technological advancement, business leaders have to adapt to ensure that their organisations are not left behind. Globally, universities have realised the importance of this and introduced new programmes to ensure that the talent they develop are able to adapt to the ever evolving business environment. In this article, Prof. Annie Koh, Vice President, Office of Business Development, Singapore Management University (SMU), and Prof. Chiu-Ling Lu, Associate Dean of Industry-Academia Development, College of Management, National Taiwan University (NTU), will discuss how education methods have evolved to meet the needs of industry.

Written originally in Chinese by Fu Kuo-Chang, President of the NTU EMBA Alumni Journal Committee

The rapidly evolving business environment has seen many new technologies being introduced and quickly surpassed by even newer innovations. In the face of these developments, businesses face new challenges which require them to evolve continuously in order to survive and sustain their operations. Consequently, securing the right talent is of high importance to these organisations as they face these disruptive issues. In this article, Prof. Annie Koh and Prof. Chiu-Ling Lu will share how universities can approach the issue of human capital development, facilitate sustainability, and help support business transformation to meet the demands of this new operating environment.

Singapore Management University (SMU)

Talent, Technology, and Trust: Key to Securing Talent Pipelines for Industry



workforce that is able to meet a country's strategic economic objectives. Prof. Koh shared that to address these challenges, companies will require talent that is equipped with both soft and hard skills. This will require them to not only possess a deep understanding of the industries that they are working in, but also be able to undertake a wide spectrum of varied roles

Modern higher education is no longer about the memorising and regurgitating of facts from textbooks. Universities now have to collaborate closely with various stakeholders in their efforts to develop a nimble and adequately equipped

within their organisations. To cultivate such competitive talent, universities, governments, and industry have to develop a relationship that is based on Talent, Technology, and Trust.

Talent

Prof. Koh notes: "A university existing in an ivory tower can never produce excellent talent. The key purpose of a university education is to ensure that new generations of the workforce are equipped with relevant skills and knowledge to create value for the economy in the future. To meet this objective, the Singapore Management University (SMU) has been actively working with industry, government, and academia in its journey to develop the talent of tomorrow."

Singapore is a global trading hub with trade accounting for 12 percent of the its GDP. In partnership with the private and public sectors, it founded the International Trading Institute (ITI@SMU) in 2008. Through ITI@SMU, students on its trading programme benefit from a unique education. In addition to the traditional 'for-credit' courses, the curriculum also includes 'non-credit' courses where professionals with deep industry experience share from their knowledge and experience. In addition, local site visits, overseas Industry Study Missions, and internships with established trading companies provide the students with experiential learning opportunities.

Technology

The technological transformation that is taking place has resulted in significant disruptions to the global economy. Many traditional jobs have been replaced by artificial intelligence (AI), digitalisation, and automation solutions. As a result, skills that are relevant to these

technologies will be essential for the talent of the future. To ensure that the students are future ready, SMU started offering courses on data analytics, block chain, and AI applications.

Trust

Trust and cooperation between various stakeholders is also key to industrial advancement as digitalisation accelerates globalisation. To this end, ITI@SMU offers various programmes on how to develop trust in business, internationalisation, and cross-cultural sensitivity to help students cultivate the skills they require for international roles.

College of Management, NTU Building the Talent Supply Chain



Apart from being a top-tier research institute, the College of Management also plays a leading role in industry-academia applications and talent development. Prof. Lu shared that the university regularly organises transdisciplinary programmes, talks by professionals, and corporate site visits to ensure that its students keeps pace with the latest industry developments. In partnership with the Career Development Office (CARDO) and Service for Executive Education Development (SEED), the College also helps equip talent at all levels, ensuring a robust supply of management talent for Taiwan's economy.

Entry-Level Talent

CARDO is an important platform that connects students with companies. Amongst its many initiatives is the provision of multi-career development education which help students design blueprints for their future and create specific study plans that provide roadmaps which lead towards their life goals. CARDO also helps corporate partners formulate campus recruitment strategies in support of their manpower needs. It also partners with businesses to organise career programmes each year. This includes the TAIDA Internship Program (TIP), the Talent Cultivating Program (TAP), Career Talks, Elite Salon, and the Occupation Workshop.

Mid-Level Talent

To help business meet their need for mid and senior level talent, SEED offers the Customised Specific

Programme (CSP) which offers basic to comprehensive management knowledge programmes. Prof Lu remarked, "Courses typically offered by HR departments tend to be piece-meal and do not provide holistic training. CSP on the other hand provides comprehensive tailored programmes that are able to meet the needs of different companies." Today the CSP has been adopted many reputable domestic and foreign companies to train their executives with the number of corporate partners continuing to growing steadily.

Top-Level talent

For senior level executives and company founders, regular corporate training may be inadequate for their needs. Prof. Lu remarked, "For many company leaders seeking further self-development opportunities, programmes offered by their HR department often fail to deliver. The Global Executive Program (GEP) offered by NTU was established to meet this need." Company founders and their senior executives can now benefit from programmes that provide international experiences through programmes that have been developed in partnership with world-class business schools. This allows them to establish business networks and gain insights into local customs and cultures, providing them with deeper insights on how they can best execute their strategies to develop these foreign markets.

Taiwan is an island that is populated by many small-and-medium sized enterprises (SMEs) and Singapore is a globally recognized economic power. Both countries will have to continuously re-invent themselves and develop workforces that are able to meet the demands of the new dynamic business environment. Innovative business programmes will have to be continuously developed and evolve to ensure a supply of talent that is ready to meet the challenges of the future.



Prof. Annie Ko

Professor of Finance (Practice), SMU
Vice President, Office of Business
Development and External Relations,
SMU

Academic Director, Business Families
Institute and International Trading
Institute, SMU
Professor, Family Entrepreneurship at V3
Group



Prof. Chiu-Ling Lu

Professor, Department of International
Business, NTU
Associate Dean of Industry-Academia
Development, College of Management,
NTU

Book Title	Anticipating and Preparing for Emerging Skills and Jobs
Series Title	
Chapter Title	Anticipating and Preparing for the Future—One Example from Higher Education: The Singapore Management University (SMU) Experience,
Copyright Year	2021
Copyright HolderName	Asian Development Bank

Professor Annie Koh contributed to a chapter in the book titled “Anticipating and Preparing for Emerging Skills and Jobs”.

Abstract of the chapter

“Anticipating and Preparing for the Future—One Example from Higher Education: The Singapore Management University (SMU) Experience,

Universities need to view themselves as strategic assets of the country to create impact. They should play the role of academic entrepreneurs, working closely with industry to create a wide pool of talent that can address different needs for the future of work. Today's employers demand that the future workforce be equipped with a mix of hard and soft skills, as well as deep knowledge and flexibility, to take on multifunctional roles in their organizations. In the past 10 years, the Singapore Management University (SMU) was increasingly aware of such challenges faced by companies and have experimented with different initiatives and innovative programs to stay relevant, focusing on talent, technology, and trust, working in public-private partnership with government and industry.



Annie KOH

V3 Group Professor of Family Entrepreneurship
 Professor of Finance (Practice)
 Vice President, Business Development
 Academic Director, Business Families Institute
 Academic Director, International Trading Institute

Profile of Annie KOH

Access URL <https://bit.ly/2TKbSsf>

Research articles

EVERS, Hans-Dieter and MENKHOFF, Thomas. China's Belt and Road Initiative and ASEAN's maritime clusters. (2019). *China's Belt and Road Initiative - Understanding the Dynamics of a Global Transformation*. 7, 199-220. Research Collection Lee Kong Chian School Of Business.

Available at: https://ink.library.smu.edu.sg/lkcsb_research/6434

SINGH, Arambam James; NGUYEN, Duc Thien; KUMAR, Akshat; and LAU, Hoong Chuin. Multiagent decision making for maritime traffic management. (2019). *Proceedings of the Thirty-Third Conference on Artificial Intelligence 2019: Honolulu, HI, January 27 – February 1*. 6171-6178. Research Collection School Of Information Systems.

Available at: https://ink.library.smu.edu.sg/sis_research/4695

TANG, Loon Ching and LOW, Joyce M. W.. Strategic intent of OBOR: Enhancing energy supply resilience. (2020). *Journal of Shipping and Trade*. 5, 1-25. Research Collection Lee Kong Chian School Of Business.

Available at: https://ink.library.smu.edu.sg/lkcsb_research/6524

WANG, Frances Yaping, & WOMACK, Brantly.(2019). Jawing through crises: Chinese and Vietnamese media strategies in the South China Sea. *Journal of Contemporary China*, 28(119), 712-728.

Available at: https://ink.library.smu.edu.sg/soas_research/3075

Cases

Bold and Responsible Leadership in Uncharted Waters: The Future of BW Tankers
by Annie Koh, Flocy Jos.

Available at <https://cmp.smu.edu.sg/case/3956>

Nium: Leveraging Fintech to Disrupt Cross-Border Remittance Services
by Annie Koh, David Fernandez, Cheah Sin Mei

Available at <https://cmp.smu.edu.sg/case/4296>

the year in review

MEDIA LINKS

16 March 2020



Use Metrics Wisely: There's more to the economy than dollars and cents

<https://bit.ly/38amZ6o>

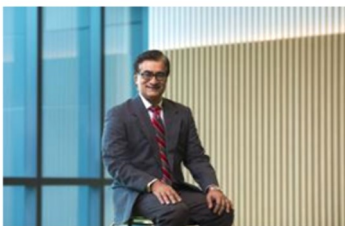
27 April 2020



Singapore Management University and Tradeteq to develop quantum computing credit scoring for trade finance

<https://bit.ly/3jTBw8z>

20 May 2020



Dealing with global supply chain breaks

<https://bit.ly/3mPKvJJ>

30 June 2020



The road ahead for global supply chains

<https://bit.ly/3eqDUCT>

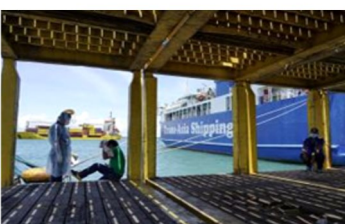
1 September 2020



SMU law professor appointed as appeal arbitrator of Multiparty Interim Appeal Arbitration Arrangement

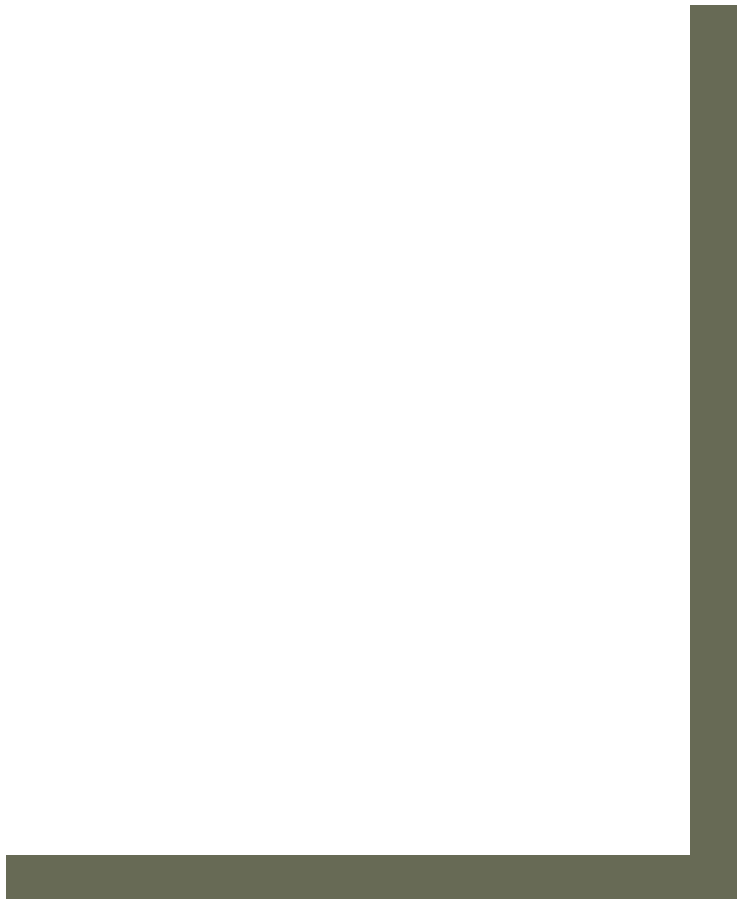
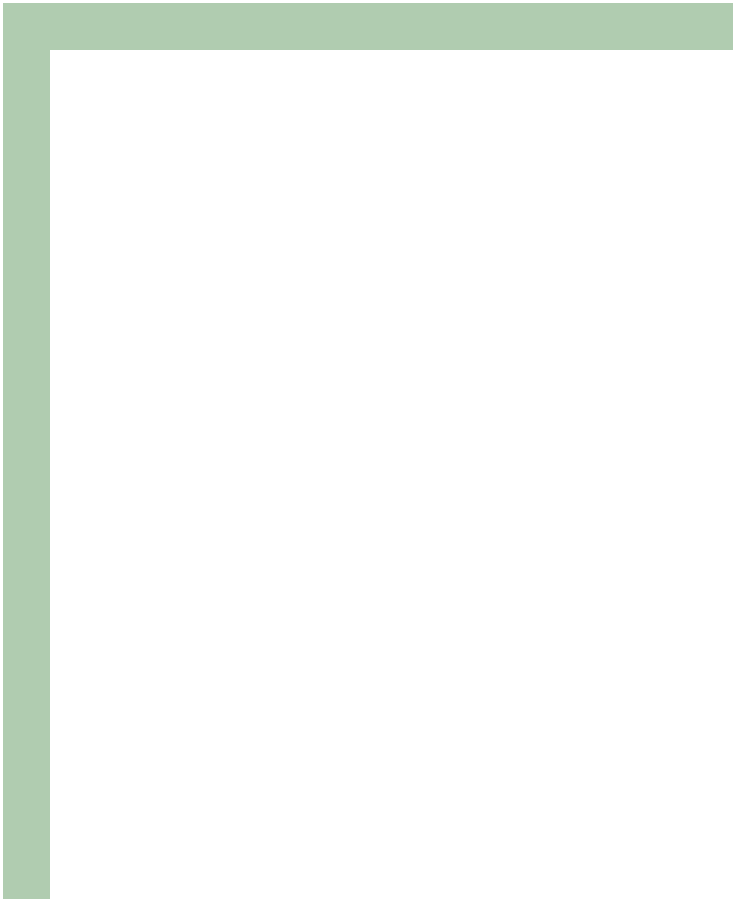
<https://bit.ly/368gfmW>

5 October 2020



SMU faculty awarded Social Science Research Council (New York) Rapid-Response Grant on Covid-19 and the Social Sciences

<https://bit.ly/3jWIDx8>





www.iti.smu.edu.sg



+65 6828 0430



iti@smu.edu.sg