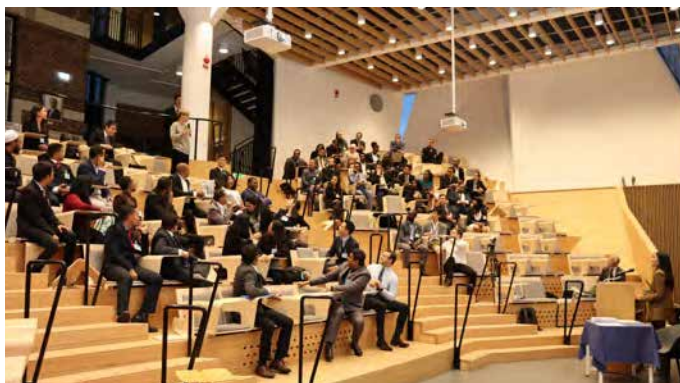


The world is a family,  
 and all humankind are brothers and sisters.



## Orientation Gathering 2019: Insights and Inspiration

**Svitlana Oleksandrivna Shestova**  
 (Ukraine, 2020)

For the academic year 2019/2020, 28 students from 23 countries received the wonderful news that they had been chosen to receive Sasakawa Fellowships, offering invaluable support for education in the specializations offered by the World Maritime University: Maritime Education & Training, Maritime Energy Management, Maritime Law & Policy, Maritime Safety & Environmental Administration, Ocean Sustainability, Governance & Management, Port Management, and Shipping Management & Logistics. I was one of the lucky ones to be chosen.

To start the year, The Nippon Foundation once more kept up its admirable practice of holding an “Orientation Gathering” meeting of Sasakawa Fellowship students of the World Maritime University early in the Foundation term. The intention is to unite the Fellowship holders enrolled in the two Classes current at the University: in our case, students of the 2019/2020 and 2018/2019 academic years. These meetings have become traditional, and they are looked forward to both by beginners and those who, thanks to the generous support of The Nippon Foundation, will graduate this year.

The meeting for our Class of Fellowship holders took place on September 20 in the Sasakawa Auditorium of the World Maritime University and was attended by representatives of The Nippon Foundation.

Mr. Eisuke Kudo, Advisor for the Sasakawa Peace Foundation (SPF), emphasised that networking among the graduates is one of the main aims of the Sasakawa Fellowship programme. This avenue of support even after graduation from WMU gives graduates the opportunity to exchange experiences and advice, often leading to success, promotion and a real opportunity to influence the development of the maritime sector.

Mr. Kudo’s following words were especially memorable: “You should be always proud of

yourself to be chosen as one of the successful recipients, and we expect you to perform well from your education at WMU”, he said.

During the orientation meeting, current students of the Class of 2019 held very informative presentations for newcomers about the seven MSc specializations in Maritime Affairs, as well as shared experiences of studying at WMU. What experiences they have had! They paid particular attention to the visits that they had an opportunity to take part in with the support of The Nippon Foundation, including an especially memorable visit to Japan in May 2019. To be able to see at first hand the way sections of the maritime sector are developing in Japan seems to have been a remarkable opportunity for the students. Our group is already looking forward to its journey to Japan and the inspiration we will gain from the experience.

Mr. Takeshi Mizunari, Research Fellow, Ocean Education Division, Policy Research Department of SPF, introduced the students to the main areas of activities of the Sasakawa Peace Foundation and The Nippon Foundation, and also described future goals to develop the programme’s website, which will certainly have a positive effect on the Sasakawa Fellows’ Network. He gave a clear and detailed description of the vision of the Sasakawa Fellowship programme, which is to develop and maintain professional and social international interaction. Many students were surprised that boat racing contributes to the funding of their Fellowship! In conclusion, Mr. Mizunari invited students to fill in the information in their personal profiles, thus creating a smart platform for rallying the community of Sasakawa alumni, and enabling interaction.

Students of the Class of 2020, with the warm support of students of 2019, were given an opportunity to introduce themselves, their countries and specializations.

Of course, the most memorable moment of the



meeting was the reception organized by The Nippon Foundation in the WMU World Bistro. WMU President, Dr. Cleopatra Doumbia-Henry, thanked the Foundation for its extraordinary and ongoing support for maritime capacity building by providing Fellowships to WMU students. She also emphasized the importance of cooperation with The Nippon Foundation in the sphere of the promotion of maritime education in developing countries, and congratulated the newly enrolled students on joining the World Maritime University and The Nippon Foundation families.

There was a wonderful friendly atmosphere at the reception. Amongst the cheerful babble and socializing, students had a great opportunity to meet, share experiences, and make friends, as well as taste the wonderful dishes specially prepared by the staff of the Bistro. Dr. Doumbia-Henry, Mr. Kudo, Mr. Mizunari, WMU professors and representatives of the WMU staff also joined in the friendly interaction with students. This undoubtedly helped new students to feel welcome and honoured in joining an elite group of maritime professionals, gifted with the opportunity to get one of the best world maritime educations through the support of The Nippon Foundation.

The orientation meeting left only the best impressions. We are looking forward to our future at WMU and our continued interaction with The Nippon Foundation, with great hope, enthusiasm and gratitude.

# New Members of WMU Sasakawa



## Mohammed Mojahid Hossain Chowdhury

Lecturer, Department of Port and Shipping Management  
Bangabandhu Sheikh Mujibur Rahman Maritime University

WMU is a center of excellence in maritime education. As a faculty member of the only public maritime university in Bangladesh, I had a dream to pursue my MSc at this auspicious institution. On this occasion, I would like to offer my sincere gratitude to the Sasakawa Peace Foundation for giving me the chance.

Bangladesh  
SML



## Akshaya Kumar Mahapatra

Operations and Plans Officer, Coast Guard District Headquarters No-7, Odisha  
Indian Coast Guard, Ministry of Defence

The professional competency gained at WMU will immensely benefit my organization and my home country. The sharing of knowledge with fellow officers and subordinates will enhance the overall knowledge base for better implementation of national laws and policies. Additionally, it will also provide valuable guidance on streamlining marine regulations and strict compliance.

India  
MLP



## Sola Kruey

Deputy Chief of Marketing Session, Planning/Marketing Department  
Phnom Penh Autonomous Port

I am so grateful for the scholarship offered by the Sasakawa Peace Foundation. After graduation, I hope to play a major role in developing and enhancing port operational efficiency, promoting the maritime sector in Cambodia, and to continue to be actively engaged in the local and global Sasakawa Fellows' Network.

Cambodia  
PM



## I Komang Hedi Pramana Adiputra

Navigation Instructor, Politeknik Pelayaran Sorong  
Indonesia Ministry of Transportation

The Sasakawa Peace Foundation has given me big support to be a WMU student at the best maritime university in the world. Therefore, I will enrich my maritime knowledge and gain strong connections with Sasakawa Fellows to achieve UN SDGs for my country and internationally.

Indonesia  
MSEA



## Badri Tetemadze

Captain, Flag Administration  
Columbia Shipmanagement / Maritime Transport Agency of Georgia

Thanks to the Sasakawa foundation, I have been lucky to be enrolled at WMU with a full scholarship, which is an absolute honor. I am looking forward to receiving as much knowledge as possible in the field of MSEA, which I intend to use further for networking and facilitating the maritime industry in Georgia. I do hope that I will be able to thank the Sasakawa Foundation with my achievements and success not only here at WMU but also afterwards. Looking forward to visiting Japan next year.

Georgia  
MSEA



## Wawan Rowandi

Data Processor, Previous Fish Resources Management  
Previous Directorate General of Capture Fisheries

My resolution going forward is to represent my country in international organizations. I will broaden my knowledge about Ocean Sustainability, especially Fisheries Stock Assessment by studying at WMU.

Indonesia  
OSGM



## Marvin Bang-Gesina Ayoo

Maritime Administrative Officer, General Maritime Services  
Ghana Maritime Authority

Words cannot describe the honour done me by being awarded a fellowship from The Nippon Foundation. I look forward to leveraging the opportunities and networks provided by WMU to offer policy guidance and direction in the maritime sector and how collectively we can secure and sustain a cleaner ocean. My gratitude to Dr. Yohei Sasakawa.

Ghana  
OSGM



## Sepideh Chokhachi Baradaran

Monitoring Expert, Department of Monitoring  
Department of Environment

The sustainability of oceans is important for the world, so I would like to gain as much knowledge and skills as possible. After graduation I want to use this knowledge to address the challenges that our oceans face. I am so grateful to the Sasakawa Peace Foundation for giving me this opportunity.

Iran  
OSGM



## Abraham Akwetey Teye

Officer in Charge, Eastern Naval Command Intelligence Cell  
Ghana Navy

I am eager to work and ensure the safety, security, and environmental protection of Ghana's maritime domain. This will be achieved by the high quality of education I will receive at WMU.

I am grateful to the Sasakawa Peace Foundation for giving me this great opportunity.

Ghana  
MLP

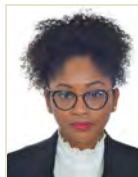


## Haruto Yamada

Engineering Officer, International Division  
Japan Agency of Maritime Education and Training for Seafarers

I would like to deepen friendships and build effective relationships with Sasakawa Fellowship students through studying at WMU. Even after graduation, I will contribute to the development of international maritime education and training with them to improve safety and security in the marine field.

Japan  
MET



## Katina Alicia Benn

Executive Assistant to Director General, Maritime Administration Department  
Ministry of Public Infrastructure

Upon the successful completion of my Masters Degree at the World Maritime University, I will return to my Country with a plan to positively impact the Maritime Education system whilst encouraging and supporting the employment and development of more women in this sector.

Guyana  
MET



## Yoshikatsu Yasuta

Port State Control Officer, Chugoku District Transport Bureau  
Ministry of Land, Infrastructure, Transport and Tourism

I feel that learning at WMU and exchanging knowledge with experts from various countries will help me grow greatly. I am proud of being a member of the prestigious WMU Sasakawa Fellows, and I would like to contribute as much as possible to the sustainable development of oceans and societies around the world.

Japan  
MSEA



## Anish Joseph

Nautical Surveyor cum Deputy Director General of Shipping, Nautical Wing  
Directorate General of Shipping, Ministry of Shipping, Government of India.

The Sasakawa Peace Foundation has given this incredible opportunity to me and with it an added responsibility. The United Nations Sustainable Development Goals are always in the forefront of my mind. Being empowered with knowledge from the WMU MSc programme will better equip me to work towards these goals.

India  
MSEA



## Maureen Kanini Kitheka

Policy Analyst, State Department for Shipping and Maritime  
Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works

I look forward to putting into practice skills and knowledge gained at the World Maritime University to influence the adoption of policies that promote sustainable use of our ocean resources. I thank the Sasakawa Peace Foundation for the opportunity to join the Sasakawa network for a greater cause.

Kenya  
OSGM

## Specialization Courses

**M E T** : Maritime Education & Training

**M E M** : Maritime Energy Management

**M L P** : Maritime Law & Policy

**M S E A** : Maritime Safety & Environmental Administration

# Fellowship, Class of 2020

 <p>Malaysia MET</p>	<p><b>Zaful Rullah Hakiem Bin Zaini</b> Lecturer, Maritime Simulator &amp; Communication Centre Malaysian Maritime Academy</p> <p>Never stop learning. WMU will be a platform for me to become a better person. I will fully utilize my surroundings and all of my potential in order to achieve my dynamic goals.</p>	 <p>Seychelles OSGM</p>	<p><b>Chrissan Handy Barbe</b> Principal Policy Analyst, Department of the Blue Economy</p> <p>It is a great honor to be part of the Sasakawa Fellowship. My aspiration is to acquire academic experience, Ocean Governance and Management skills for the further development of the Blue Economy agenda. This will surely be useful for my organization and country in the future.</p>
 <p>Maldives OSGM</p>	<p><b>Maleeha Haleem</b> Research Officer, Fisheries Management Ministry of Fisheries, Marine Resources and Agriculture</p> <p>With this opportunity offered to me by the Sasakawa Foundation, I hope to expand my knowledge and skills in the maritime sector, and as a result, contribute to the sustainable development of the fisheries industry in my country. I look forward to joining the WMU Sasakawa Fellows Global Network.</p>	 <p>Sri Lanka MSEA</p>	<p><b>Indika Chandraguptha Gunawardana Rambanda Devagea</b> Commander, Sri Lanka Coast Guard Headquarters Sri Lanka Coast Guard</p> <p>I wish to express my heartfelt gratitude to The Nippon Foundation and the Sasakawa Peace Foundation for supporting me in joining WMU. I'm looking forward to gaining more knowledge and skills in the maritime field. I'll carry this knowledge to my organization and support implementation of IMO regulations to ensure safe, secure and serene seas.</p>
 <p>Mongolia MLP</p>	<p><b>Anujin Onon</b> Legal Specialist, Railway Traffic Control Center Ministry of Road and Transport Development of Mongolia</p> <p>I want to express my sincerest gratitude to The Nippon Foundation and the Sasakawa Peace Foundation for this huge opportunity. I will work as a maritime lawyer, contributing to the further development of the maritime sector in Mongolia while applying what I learned at WMU.</p>	 <p>Tanzania OSGM</p>	<p><b>Julius Edward Salema</b> Senior Environmental Management Officer, Special Areas and Climate Change National Environment Management Council</p> <p>I'm looking forward to joining the WMU Sasakawa Fellows Global Network by sharing experiences on how to overcome maritime global challenges such as marine pollution, climate change and other emerging issues. Furthermore, I will use the acquired skills from WMU in policy formulation processes to support the implementation of International Maritime Conventions as well as SDGs in Tanzania.</p>
 <p>Nigeria MEM</p>	<p><b>Abiodun Abidemi Folorunsho</b> Commander, Nigerian Navy Ministry of Defence</p> <p>The fellowship afforded me by the Sasakawa Foundation provides the opportunity to contribute to better energy management in naval vessels in Nigeria and Africa. On graduation, I hope to be a good ambassador and leverage the Sasakawa Fellows' network to impact the maritime sector in Africa.</p>	 <p>Thailand MLP</p>	<p><b>Natchanok Kosaisuntorn</b> Human Resource Officer, Personnel Section Marine Department, Ministry of Transport, Thailand</p> <p>I feel so honored to be one of the recipients of the Sasakawa Fellowship, and I would like to express my gratitude to Dr. Sasakawa for providing me an opportunity to study at WMU. I will utilize my knowledge and experiences gained at WMU to contribute to the national and international maritime sector.</p>
 <p>Peru MSEA</p>	<p><b>Guillermo Alberto Benites Valverde</b> Navy Officer, General Directorate of Captaincy and Coast Guard Peruvian Navy</p> <p>Being one of the Sasakawa Fellows that work at their maritime administrations in order to help their countries to be updated in the implementation techniques of the IMO Conventions. The meeting of Sasakawa Fellows in 2022. Peru is offered as the venue for this event.</p>	 <p>Tunisia PM</p>	<p><b>Houcem Eddine Cherni</b> Harbour Pilot, Gabes Port Control Office of Merchant Marine and Ports of Tunisia</p> <p>To be one of the ocean leaders is one of the greatest challenges I want to take. Graduating from WMU will be the first step to carry out this dream, and it is such a great honour to be one of the SPF Fellows. I will do my best to expand our network.</p>
 <p>Philippines OSGM</p>	<p><b>Eric Retiro Ferrancullo</b> Flag Secretary, Office of the Commandant Philippine Coast Guard</p> <p>Upon successfully completing my Masters Degree at WMU, I aspire to utilize to the full extent the insights and knowledge that I will gain, contributing to the effective management and governance of the Philippine seas as a conduit of our oceans' peace, security and sustainable growth.</p>	 <p>Ukraine MLP</p>	<p><b>Svitlana Oleksandrivna Shestova</b> Head of Division for Communication with Maritime Organizations Maritime Safety Department, Ukrainian Sea Ports Authority</p> <p>The Sasakawa Foundation gave me an opportunity to receive an education at one of the best world universities. It's a great opportunity to gain knowledge and build networks. It will help me to promote safe and environmentally friendly maritime policy, as well as contribute to the advancement of Sasakawa Foundation goals.</p>
 <p>Philippines MET</p>	<p><b>May Belicena Marfil</b> Superintendent, Coast Guard Education and Training Command Coast Guard Education and Training Command, Philippine Coast Guard</p> <p>Upon returning to my country, equipped with the knowledge gained from WMU, I want to contribute to the sustainability of its maritime education and training system. Moreover, I will establish a network with Sasakawa Fellows in my country and continually support the advocacies of the Sasakawa Foundation.</p>	 <p>Vietnam MLP</p>	<p><b>Long Viet Le</b> Official, International Cooperation Department Ministry of Transport of Viet Nam</p> <p>My office and I are deeply grateful to the Sasakawa Peace Foundation for giving me this precious opportunity to study at WMU. I will dedicate myself to improving my maritime knowledge and contribute as much as possible towards the development of the maritime field at home.</p>

OSGM: Ocean Sustainability, Governance & Management

S M L : Shipping Management & Logistics

P M: Port Management

# Towards Mapping 100% of the World's Ocean Floor: GEBCO-Nippon Foundation Team Wins International Competition

**Mitsuyuki Unno**

Executive Director, The Nippon Foundation

In May 2019, a team comprised of fellows from the GEBCO-Nippon Foundation Training Program won the Shell Ocean Discovery XPRIZE, an international competition to advance deep-sea exploration technology.

There was a practical challenge in that the team members could not work together in one location as they lived in different countries. Even so, their diversity proved to be a factor which contributed in them winning the competition.

In entering the competition, the team had a goal beyond just winning.

The prize money is planned to be used for furthering the goals of The Nippon Foundation-GEBCO Seabed 2030 which aims to map the world's entire ocean floor by 2030.

## A Multinational Team with Members from 13 Countries

Since 2004, with the cooperation of the General Bathymetric Chart of the Oceans (GEBCO),\* The Nippon Foundation has been running a training program to raise experts in ocean mapping at the University of New Hampshire in the U.S. To date, the program has trained 90 fellows from 40 countries. With 16 fellows from 13 countries at its core, the GEBCO-Nippon Foundation Alumni Team (hereafter the "GEBCO-NF Team") was formed to take part in the Shell Ocean Discovery XPRIZE, an international competition in deep-sea exploration technology.

In the competition organized by the XPRIZE Foundation, participants competed for rapid data collection from an extensive area of the sea floor, using deep-water unmanned exploration robots at a depth of 4,000 meters. Entering the competition were 32 teams from 22 countries. After the screening of documents and technology evaluation in Round 1 of the competition in Norway in November 2017, 9 teams were selected to compete in the final round (Round 2) off the coast of Kalamata in Greece from November 2018 to February 2019. Japan's Team KUROSHIO, formed with members from industry, government and academia, also advanced to the final.

The GEBCO-NF Team was diverse. Not only did the members come from different countries, but they also had different affiliations, fields of specializations, and positions. Since it was difficult for them to gather in one location to work for the competition, they communicated online. This meant that some members only got to see other members of the team face-to-face for the first time at the award ceremony on May 31, 2019. No other team had members scattered across the globe.



At the competition's award ceremony in Monaco

The fact that they could only communicate online posed some practical difficulties but having members from all over the world also worked to the team's advantage. That is to say, the team could combine and make use of each fellow's connections and networks. The members contacted companies who are technological forerunners in their respective countries and negotiated with them directly for their cooperation. By utilizing each member's networks, it was possible to immediately contact the right persons when issues or questions arose. This would probably not have been possible for a team coming from a single community. We believe that to bring about a breakthrough, not just in reference to this competition, but in everything, "diversity" is key. Diversity is also one of the values that is regarded as important by The Nippon Foundation.



Round 1 (technology evaluation) in Norway in 2017



GEBCO-NF Team processing data in Round 2 (final round) in Greece

## A Shared Vision

In the competition's final round, the teams conducted exploration using unmanned robots and were tested on their technologies to create a

deep-sea 3D map at a depth of 4,000 meters over an area of more than 250 square kilometers within 24 hours. Even when faced by these rigorous competition requirements, the GEBCO-NF Team had managed to collect the required data and create a map using that data within the allocated time and had managed to win the competition. The GEBCO-NF Team was the only team that cleared all of the competition requirements.

It should be emphasized that in addition to the considerable knowledge and expertise derived from the diversity of the team members, the focus of the entire team was not on winning the competition but on something far larger than that. Participation in the competition was part of their endeavor to fulfill humanity's dream of unlocking the mysteries of the world's ocean floor. Although it did not directly affect the outcomes of the competition, it appears that many involved in the competition held high regard for the fact that the team was operating under this shared vision.



Surveying system developed and used in the competition by the GEBCO-NF Team

## Towards Mapping 100% of the World's Ocean Floor

The Grand Prize of 4 Million US Dollars was donated in its entirety to the Nippon Foundation. The amount is expected to be used to further the goals of the Nippon Foundation-GEBCO Seabed 2030 Project, a joint initiative between the Nippon Foundation and GEBCO to map the world's entire ocean floor by 2030. Several members of the team have

started on new initiatives after the competition, accompanying long expedition voyages to collect data in unexplored areas of the sea. The prize money may also be used for these initiatives.

The data from mapping the sea floor topography can be used for forecasting tsunami propagation and global sea level rise, safe navigation of ships, monitoring of marine life, and in addressing many other issues. In the mere 2 years since the project had started, the percentage of the world's ocean floor that has been mapped has increased from 6% to 15%. Achieving the project's goal, however, will require further cooperation from across the world.

The competition provided opportunities not only for all the teams to explore new ways of mapping the ocean floor, but had also served as a platform for creating new encounters and building connections. It is expected that the efforts to map the ocean floor will accelerate with

the growth of the global network across different disciplines.. It is hoped that people from diverse backgrounds will join in this effort to realize humanity's shared dream.

On 18th September 2019, representatives of the GEBCO-Nippon Foundation Alumni Team had paid a courtesy call to the Prime Minister of Japan, Mr. Shinzo Abe, to report on their performance in the Shell Ocean Discovery XPRIZE.



A team representative, Ms. Karolina Zwolak, reports to Prime Minister Shinzo Abe



Mr. Unno reports about the alumni's contribution at the Seabed 2030 Symposium in London

Not limited to participation in XPRIZE, contributions of the alumni from the GEBCO-Nippon Foundation training program were also reported at The Nippon Foundation-GEBCO Seabed 2030 Symposium held at the Royal Society in London on 22nd October.

*\*GEBCO is a joint project between the International Hydrographic Organization (IHO) and UNESCO-IOC to map the world's entire ocean floor and standardize the names of undersea features.*

## Maritime Cyber Calamity around the Corner?



**Mr. Jakob P. Larsen**  
Head of Maritime Security,  
BIMCO  
(The Baltic and International  
Maritime Council)

Ships are increasingly using systems that rely on digitisation, digitalisation, integration, and automation, which call for cyber risk management on board. As technology continues to develop, information technology (IT) and operational technology (OT) onboard ships are being networked and more frequently connected to the internet. Opportunities to inflict damage appear to be many, and the question to ship operators is how to manage these new forms of risk.

### BIMCO at the forefront

BIMCO was a first mover in the field of maritime cyber security and issued its first set of industry guidelines already in January 2016. Since then, the guidelines have developed and are now in their third iteration. A key addition to the latest edition of the guidelines is an annex describing how cyber security risk management should be reflected in safety management systems.

### IMO takes action

In June 2017, IMO decided to take concrete steps to address cyber risks. In a resolution dated June 16, 2017, IMO decided that member states should ensure that cyber risks were appropriately addressed in safety management systems no later than the first annual verification of the company's Document of Compliance after January 1, 2021. With this decision, IMO made it clear that only cyber risks with implications for the safety of

people, the environment or the ship were within the scope covered by IMO regulations.

A major cyber security event would soon attract the attention of maritime decision makers across the world.

### NotPetya crisis at Maersk

In 2018 the global shipping conglomerate Maersk was hit by a cyber-attack. Within a few minutes the company's global IT network was infected by an aggressive cyber weapon known as "NotPetya", effectively paralysing 49,000 laptops, and 1,200 IT applications, including key data bases and customer information. Fortunately, NotPetya did not directly affect ships and oil installations, as these units were not online, and nearly all data was eventually recovered using a backup from a server in Ghana, which had been protected from infection by an incidental, local power cut.

Camouflaged as ransomware, NotPetya was malware designed most likely by a state actor to inflict harm on Ukrainian IT infrastructure. NotPetya utilised a backdoor maliciously planted by cyber agents in a piece of software used by companies in Ukraine to send tax reports to Ukrainian authorities. NotPetya was estimated to have cost Maersk between US\$200-300 million, and for the maritime industry the incident made it painfully clear that not even companies like Maersk, known for being among the best in many fields, had done enough to mitigate cyber risks.

The Maersk case illustrated an important point when it comes to risk management: When deciding how to mitigate cyber risks, careful consideration must be given on how to best achieve the desired effect, which is business continuity. One important learning shared by Maersk in the aftermath of the NotPetya incident

was that this attack could not realistically have been prevented at the company level. On the other hand, segregation of networks to prevent spreading of malware, improved procedures when responding to the threat, and better ability to recover after the attack were some of the points highlighted by the Maersk leadership as areas where improvements could be made.

### Threat versus risk

A threat is normally considered to be the combination of ability, opportunity and intent to inflict damage. What was worth noting was that, in the case of NotPetya, the intended target was not Maersk but rather Ukrainian society as a whole. The fact that Maersk had an office in Ukraine as part of a global organisation meant that Maersk became the unintended victim of a destructive cyber-attack. In physical security terms that would be called collateral damage.

It appears that the risk of collateral damage is higher in the cyber domain, because physical proximity to events is not a prerequisite. In the cyber domain, being networked is enough. But that does not necessarily mean that a proper risk assessment needs to take into consideration all thinkable threats. It just means that the element of bad luck needs to be factored in to a larger extent than in traditional risk assessment methodology. In turn, making that fundamental recognition implies that ship operators must live with the fact that they will most likely at some point fall victim of destructive cyber-attacks. Therefore, when it comes to managing risks of destructive cyber-attacks, ship operators' risk management strategies should focus very much on how to respond to - and recover from - a cyber-attack, along with maintaining the fundamental ability to protect against such an attack.

# Maritime Energy Management – The Journey to a Sustainable Future



**Professor  
Dr. Aykut I. Ölçer**  
WMU

I am honoured to have been the holder of The Nippon Foundation Professorial Chair in Marine Technology and Innovation since August 1, 2017. I am also the Director of Research as well as the Head of Maritime Energy Management (MEM) at WMU.

I have taught, supervised and mentored many Sasakawa Fellows since I joined WMU in 2012. It has always been a great pleasure for me to take a learning journey with them, especially as it has led to many success stories. There are a few examples that I would like to highlight:

- Mr. Yasser Bayoumy Abdelwahab Farag from Egypt was a Class of 2017 Sasakawa Fellow who specialized in MEM. I was fortunate to supervise his dissertation in the area of energy efficient ship operations, where he developed a novel fuel consumption prediction methodology by using Neural Networks in his research. He very deservedly won the Chancellor's Medal for Academic Excellence in 2017. He is actively representing AASTMT (Arab Academy for Science, Technology & Maritime Transport) in IAMU activities, as well as representing the League of Arab States at IMO meetings.
- Mr. Eko Maja Priyanto from Indonesia was also a Class of 2017 Sasakawa Fellow, and again I supervised his MSc dissertation titled, "A strategic development of alternative fuel initiation and its adaptation in a developing country: a feasibility study on methanol-fuelled domestic passenger ships in

Indonesia". He published his research at the Royal Institution of Naval Architects conference - Power & Propulsion Alternatives for Ships, January 22-23, 2019, London, UK. He is now Senior Inspector at SBU Marine and Offshore - PT. Biro Klasifikasi Indonesia (Persero).

- A third Sasakawa Fellow whose dissertation I was delighted to supervise was Mr. Naohiro Saito from Japan (Class of 2018). His MSc dissertation was entitled "The economic analysis of commercial ships with hydrogen fuel cells through case studies". He is now a member of the Japanese delegation at IMO MEPC meetings, focusing on energy efficiency and GHG related aspects.
- Captain Anas Saleh Mohammad Alamoush of the Jordanian Navy was a Sasakawa Fellow in the Class of 2016. He returned to WMU in 2018, having been awarded a United Nations - Nippon Foundation research fellowship to study port sustainability. He subsequently enrolled in our PhD programme, and under my supervision he is specializing in measures to reduce greenhouse gas emissions at the port side and ship port interface. In September 2019, he participated in the world climate action summit at UN Headquarters in New York, presenting his research at the meeting of the alumni of the UN - Nippon Foundation program.

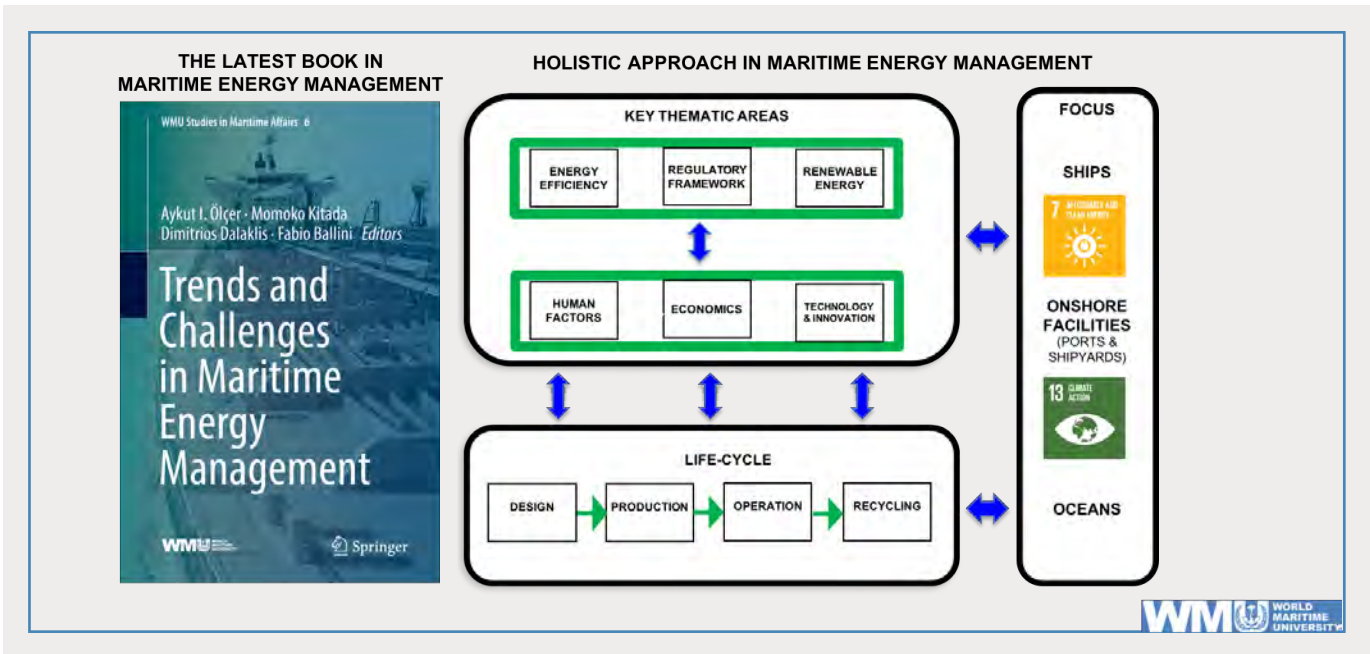
There are several major issues that currently affect maritime trade and transport and will continue to shape them for the foreseeable future. Many of these issues have been brought to the fore in the Sustainable Development Goals (SDGs). Of particular relevance to the maritime and ocean fields are those relating to climate change and the emission of Greenhouse Gases (GHGs) and air pollutants, which are SDG7

(affordable, reliable, sustainable and modern energy for all) and SDG13 (take urgent action to combat climate change and its impacts).

WMU is strongly committed to the SDGs and works to support the achievement of sustainable and energy-efficient maritime and ocean industries. Through cutting-edge research in the MEM field, WMU contributes significantly to achieving the objectives of SDG7 and SDG13. The introduction of our well-received specialization in MEM, as well as the launch of the new PG Diploma in Maritime Energy delivered through distance learning, speak to our commitment.

The Sasakawa Fellows who have specialized in Maritime Energy Management are making a real contribution to the MEM field, a key research priority area within the WMU Research Agenda. MEM responds to the needs of the maritime industry in the area of air pollution, and follows a holistic approach (shown as below). Key thematic areas interact with each other over a life-cycle perspective with a focus on ships, maritime onshore facilities and oceans. One of these key thematic areas is technology and innovation, which plays a vital role within this harmony. Since the targets set by the new IMO GHG strategy and the Paris Agreement are so ambitious, technological breakthroughs and innovations are crucial to make the journey towards a zero/low carbon and energy efficient maritime future.

The Nippon Foundation's generous support for the Professorial Chair in Marine Technology and Innovation adds significantly to WMU's ability to make a notable contribution. By supporting students for their MSc degrees in this area through Sasakawa Fellowships, The Nippon Foundation is multiplying the impact of global achievements and spreading expertise to the graduates' home countries. This is a really important contribution to the maritime and oceans sectors, and to their future sustainability.





## Contribution for Global Maritime Issues by Sasakawa Beneficiary

Mr. Chiemanukulkit, Sun, Dr. Sasakawa, Mr. Mbatha and Aji (left to right)

The afternoon of May 29, 2019, I had the opportunity to meet Dr. Yohei Sasakawa, as he hosted a luncheon for WMU Sasakawa and IMLI Nippon Foundation Fellows at IMO Headquarters. I was so excited and overwhelmed to meet Dr. Sasakawa in person. It had always been my wish to express my heartfelt gratitude for supporting my studies at IMLI during the year 2017-2018, and finally my wish came true.

At the meeting, I found myself as an audience member appreciating the views exchanged across

the table. I knew of Dr. Sasakawa's visionary thoughts and experiences, and was very much impressed with the way he expressed himself. One example that he shared with us was his reason for promoting marine environment protection, which was that sushi is raw fish, and he loves sushi. It's as simple as that. I found that, as a Nippon Foundation scholar, I am determined to follow his mandates.

The talk over lunch was a privilege and, indeed, full of joy. It was also a unique

opportunity that WMU and IMLI graduates could meet and be inspired by Dr. Sasakawa for future collaboration. It was a genuine honour to meet Dr. Sasakawa and his team, and I wish to see him again soon.

### **Mr. Watchara Chiemanukulkit**

IMLI Sasakawa Fellow 2017-2018  
Alternate Permanent Representative of the  
Kingdom of Thailand to IMO

It was a great privilege and an honour to meet the Chairman of The Nippon Foundation, Dr. Sasakawa, and his esteemed team during their visit to IMO. The meeting was also an opportunity and platform to meet other alumni from the IMO-IMLI and WMU who are the recipients of The Nippon Foundation scholarship.

It was very encouraging to hear from Dr. Sasakawa not only about the enormous task played by The Nippon Foundation in providing

funding for education and capacity building for maritime and shipping scholars, but also about his passion and leadership role as the Goodwill Ambassador of the World Health Organisation for the elimination of leprosy across the globe.

In addition, we also note the contribution made by the Foundation on its Seabed 2030 Project seeking to map the global topography of the seafloor. This initiative will be a massive contribution to the global maritime and shipping fraternity in understanding our seas and oceans

as they play a very critical role in our economies and ecosystem.

As Nippon Foundation beneficiaries, we will forever be grateful and cherish the philanthropic role played by the Foundation in our personal development and professional careers.

### **Mr. Siphon J Mbatha**

IMLI Sasakawa Fellow 2007-2008  
Alternate Permanent Representative  
of South Africa to IMO

On the occasion of a series of his events in London, and in particular the launch of two English-language books authored by him - No Matter Where the Journey Takes Me: One Man's Quest for a Leprosy-free World and My Struggle against Leprosy - Dr. Yohei Sasakawa visited IMO Headquarters, and had a luncheon meeting with the four WMU/IMLI Sasakawa Fellows from the IMO Secretariat and the Embassies.

Apart from a few more wrinkles and white hairs, nothing had changed since his last visit during the IMO Assembly in 2015, when receiving the prestigious International Maritime Prize. The Sasakawa Fellows narrated their professional progress in the international maritime field, from delegates of Member States to staff at the IMO Secretariat. Meanwhile, it was wonderful to know that the SPF supported the establishment of the WMU-Sasakawa Global Ocean Institute to further contribute to the

Sustainable Development Goals (SDGs). Most recently, Dr. Sasakawa was awarded the Gandhi Peace Prize in recognition of his tremendous contribution towards the global elimination of leprosy as a WHO Goodwill Ambassador for Leprosy Elimination.

We were deeply impressed by Dr. Sasakawa, "an 80-year-old young man", because of his remarkable determination and energy. His diary was packed with various events, and he was busy travelling around the world to help others. Like us, you may also be curious and keen to know the motivation behind his determination and dedication for philanthropy and what motivates him to support the WMU/IMLI Sasakawa Fellows. Dr. Sasakawa gave the answer in his newly launched book: "My life has been greatly influenced by the example set by my father... On my father's deathbed, the only thing my father bequeathed to me was an exhortation to work for

the benefit of the world."

Although a couple of weeks have passed since that memorable meeting, the inspiration and reflective thoughts arising from it are still in our minds: "It is the best of times". And for those as lucky as we are, those who have received the advanced maritime education at WMU supported by the Sasakawa Scholarship and are now working in various glorious positions in the global maritime sector, it is now time for us to give back - to the wide world - the knowledge and love that we have received. Let us make it our mission and destiny to commit ourselves to contributing to the sustainable development of the maritime sector and "working for the benefit of the world."

**Jun Sun** (China, 2005)  
and **Vasudevan Aji** (India, 2010)

WMU Sasakawa Fellow  
International Maritime Organization

# Chairman Sasakawa Awarded the Grand Cordon of the Order of the Rising Sun

Chairman Yohei Sasakawa was awarded the Grand Cordon of the Order of the Rising Sun, which is conferred on individuals in recognition of their services to the nation or the public, at the Spring 2019 ceremony. He was given the award for his many years' promotion of maritime projects, of international cooperation in his roles as the Leprosy Elimination Goodwill Ambassador for the WHO and as the Special Envoy of the Government of Japan for National Reconciliation in Myanmar, and for promoting a wide-range of activities, including in the fields of social welfare, physical education, and education in general.

The Grand Cordon of the Order of the Rising Sun was conferred by His Majesty the Emperor at the Imperial Palace on May 23, 2019.

Chairman Sasakawa commented, "The award is not for me personally, but is in recognition of the broad range of activities of The Nippon Foundation. I would like to continue to promote activities towards solving social issues."



## WMU-Koji Sekimizu PhD Fellowship on Maritime Governance

The WMU-Koji Sekimizu PhD Fellowship on Maritime Governance was officially launched on June 25, 2019 at the International Maritime Organization (IMO) in London. Spearheaded by the World Maritime University (WMU) with support from the Maritime and Port Authority of Singapore (MPA) and Dr. Koji Sekimizu, formerly Chancellor of WMU and IMO Secretary-General, the Fellowship will enable an assessment of the role and impact of maritime governance over the past 60 years, taking into account the role of IMO and of United Nations agencies and bodies that have impacted maritime governance.

The launch of the fellowship commemorates the 70th anniversary of the adoption of the IMO Convention in 1948 and the 21st anniversary of the IMO-Singapore Memorandum of Understanding on Third Country Training Programme (TCTP).

Dr. Cleopatra Doumbia-Henry, President of WMU, expressed her appreciation to the MPA for funding this fellowship, noting the importance of IMO's impact over the past 60 years in ensuring that shipping is safe, secure, efficient and environmentally sustainable. Ms. Quah Ley Hoon, MPA's Chief Executive, said, "MPA is pleased to contribute to the WMU-Koji Sekimizu PhD Fellowship, under Singapore's enhanced technical co-operation and training package for IMO and its Member States."

Applications for the fellowship were submitted by mid-September, and a successful candidate should be announced in December 2019, after careful consideration by a specially constituted Awards Committee.



### About Dr. Sekimizu

After completing his Bachelor's and Master's degrees in engineering at Osaka University, Dr. Koji Sekimizu started his career in Japan's Ministry of Transport, but subsequently spent 26 years at IMO. His illustrious career included service as Head of the Technology Section, Director of the Marine Environment Division, and Director of the Maritime Safety Division. He was elected the seventh Secretary-General of IMO in 2011 and served from January 1, 2012 to December 31, 2015.

Dr. Sekimizu was the fourth Chancellor of WMU, and took a significant interest in the success and growth of the University. He visited WMU on many occasions, inspiring the students and staff with his vision for WMU and dedication to the mission of IMO. At the 2016 WMU Graduation Ceremony, he was awarded Doctor of Science in Maritime Affairs, honoris causa.

### Editor's note

A dangerous heatwave occurred in Europe this summer. When I visited Gdynia, Poland, in June, it was an unusually hot 35 degrees there. It was reported that many people had died due to the uncommonly high temperatures. After this, Hurricane Dorian hit the Bahamas in September, resulting in many deaths and missing people. Additionally, serious damage in Japan has frequently occurred due to heavy rains and/or typhoons. A specialist indicates that such abnormal, intense weather will become more frequent because of climate change. Graduates of WMU influence every corner of the world, playing an active role in stopping global warming through their wisdom and courage. I believe that they hold the key to building a brighter future. I wish them all the best in their upcoming endeavours.



**Dr. Yoshiaki Kunieda**  
Tokyo University of Marine  
Science and Technology

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