

Making Waves

Newsletter for Maritime Studies Students and Graduates

No. 13. November 2021

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Port of Felixstowe in the News

The 400m long (1,300 ft) container ship that blocked the Suez Canal left the UK in the early hours of 5th August 2021 heading for Germany. The Ever Given docked at Felixstowe, Suffolk, on 4th August at 16:30 BST. This was the vessel's first UK visit since causing disruption to global shipping. The vessel left after 2,000 containers were unloaded by crane. Operated by Taiwanese firm Evergreen Marine, the ship was originally due to arrive in early April. Its next destination is Hamburg. [BBC Suffolk website covers the background](#) with some beautiful photographs and a time-lapse video which captures the vessel arriving in the Port of Felixstowe.

About 12% of global trade passes through the 193km (120-mile) Suez Canal, which connects the Mediterranean Sea to the Red Sea and provides the shortest sea link between Asia and Europe excluding the Northern Sea Route. The Ever Given, laden with 18,300 containers, and travelling from Malaysia to Rotterdam, ran aground in March 2021 and blocked the Canal for six days causing the mother of all transit goods traffic jam.

Student Port Visits to Resume



Our students keep a diary as evidence of continuing professional development. Below is an extract from the 'Professional Development Record' by Dimitra Kazantza one of our programme Alumni. Dimitra is now Technical Officer at [Zodiac](#)

[Maritime Limited](#) in London.

29/11/2019: TRIP TO FELIXSTOWE

Owing to the trip to the Port of Felixstowe, Britain's busiest container port and one of the largest in Europe, I had the opportunity to understand, in practice, the importance of, not only, the port's location for market accessibility, but also, the effective operations management for the achievement of greater connectivity, flexibility and the best provision of large-scale distribution services. Moreover, I was able to comprehend the significance of a port being part of a global network, namely Hutchison Ports, which confers considerable benefits, such as continued substantial investment in innovation for increasing the port's market share and achieving economies of scale, as can be evidenced by the prospective expansion of the port infrastructure and the modern fleet of cranes at Felixstowe.

Director's Take on the Ever Given incident - by Professor John Carlton



[Professor Carlton](#) is Director of MSc Maritime Programmes at City University London and author of [Marine Propellers and Propulsion](#) and editor

in chief of the Encyclopaedia of Maritime and Offshore

Looking at longer-term scenarios to prevent similar incidents options include widening the Suez Canal or, like the Panama Canal, building a second canal system. However, this would take several years to complete and involve significant capital expenditure.

Ships like the Ever Given have the advantages of scale in transport economics and from the environmental perspective of having a greater carbon efficiency in terms of gCO₂ per tonne mile.

A ship depends for its manoeuvrability on a system of rudders and transverse propulsion units the design of which depends upon size of the ship and anticipated conditions under which it will operate. Rudders work most effectively when the ship is in the higher part of its speed range and conversely, transverse propulsion units when operating at low speed where their flow efflux velocities do not suffer significantly from the flow around the hull as would be the case at higher speeds. However, when a ship encounters **abnormal weather conditions**, such as squalls or gusting conditions and particularly when in its mid-speed ranges, this can upset the relatively **delicate balance** of forces and moments chosen to control the ship. These additional disturbing forces, if of sufficient magnitude, may then upset the course and position of the ship: this particularly is true for ships having a high windage area such as container ships, ferries and cruise ships. Conversely, a propulsion failure in adverse conditions can have a similar effect.

Climate Change, and what can the world do about it? Adaption and Evolution in Marine and Terrestrial Environments

by Professor M. James C. Crabbe External Examiner for Maritime Programmes at City, University of London (see inset box for more about Professor Crabbe).

On 29 April Wolfson had the honour to host Professor James Crabbe, Supernumerary Fellow, for a talk on Climate Change, Adaptation and Evolution in Marine and Terrestrial Environments. This event was arranged as a collaboration between Wolfson's new Earth Emergency Cluster and the Old Wolves.

Synopsis of the lecture

- Coral reefs
- Adaption and evolution in Tibet and Mongolian desert
- Geoengineering
- Environmental Pollution and Public Health
- Regulation, Fiscal and Monetary Tools to Curb Emissions



Professor Crabbe diving on coral in Hainan, China



[Listen to Professor Crabbe's lecture](#)



Professor James Crabbe, Wolfson Supernumerary Fellow, is a former Governing Body Fellow. An Emeritus Professor of the University of Bedfordshire, where he was Executive Dean of Creative Arts, Technologies & Science and Professor of Biochemistry, he was also a Professor and Head of School at the University of Reading.

He is currently a Special Visiting Professor at Shanxi University, and Honorary Professor at both Changchun and Wuhan Business Universities, China.

Prof Crabbe is a former Vice-President and Council Member of the Institute of Marine Engineering, Science & Technology. He has produced many publications and won numerous awards. A keen scuba diver, he is also a JP (Justice of the Peace) and runs a Special Interest Group on Education in the Criminal Justice System for the Educators' Company.

In the News



15 July 2021

[Cutting GHG emission from shipping - 10 years of mandatory rules](#)

05 March 2021

[GreenVoyage2050: States accelerate action to decarbonize shipping](#)

27 October 2020

[First FIN-SMART Roundtable on Financing Sustainable Maritime Transport](#)



Academic rigour, journalistic flair

2021 1st April

[Suez Canal blockage: what it takes to unweave a megaship](#)

2021 26th March

[Suez Canal blockage: how cargo ships like Ever Given became so huge, and why they're causing problems](#)

2021 24th

[March Suez Canal container ship accident is a worst-](#)

Peter Cook explains why we need postgraduate level education in Maritime Safety and Security Management.

The [new MSc Maritime Safety and Security Management \(MSSM\)](#) responds to a growing recognition across the maritime industry of the importance of both safety and security to the operational capability and efficiency of the global seaborne supply chain. This exciting new course is an evolutionary development following City, University of London's Maritime Operations and Management MSc being ranked as the [Best Maritime Management MSc in the UK and twelfth globally by Eduniversal](#).



Peter Cook

Since the beginning of the twenty-first century maritime security has grown in magnitude and scope; the 9/11 attacks in the USA prompted the swift introduction of the International Ship and Port Facility Security (ISPS) Code, designed to prevent terrorists using merchant ships as weapons. Piracy hotspots have emerged and thrived in the waters off SE Asia, Somalia and West Africa. We have seen a rapid increase in the movement of contraband and people being smuggled or trafficked by sea. All these threats affect the shipping industry to varying degrees and need to be understood effectively and managed.

In English, the definition of **safety** is the condition of being safe or free from dangers or risks. The definition of **security**

is a secure state untroubled by danger or fear, condition or feeling. Both are similar in meaning, especially as the word 'feeling' is subjective. For many seafaring nations, the word for safety and security, in their national languages, are the same. The delineation between safety and security are therefore becoming less compartmentalised and more interrelated.

The International Maritime Organisation (IMO) is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships. In June 2017 the IMO's Maritime Safety Committee (MSC) took a significant step forward in combatting the threats posed by cyber risks to the safety and security of personnel on ships. They passed Resolution MSC.428(98) Maritime Cyber Risk Management in Safety Management Systems, affirming that the safety management systems on ships, incorporate cyber risk management. The underlying principle of the resolution is to protect ships, crews and cargos from the threats of accidental cyber-related incidents and premediated cyber-attacks by a third party. Incorporating this requirement into the International Safety Management (ISM) Code makes it mandatory across the worldwide shipping industry.

Exponential developments in technological capabilities across the maritime industry are likely to merge the two, formerly separated disciplines of safety and security and elevate their priority, especially with the increasing number of semi and fully automated ports around the globe and the introduction of various degrees of maritime autonomous surface ships.

The MSSM post graduate course will examine this dynamic area of exciting innovation, preparing students for the practical and management challenges that will emerge as new technologies, methodologies and conceptual paradigms are introduced.

Peter Cook MSc is Director of PCA Maritime Ltd, a strategic level private maritime security consultancy. He is also the Managing Editor of the International Journal of Maritime Crime and Security (IJMCS – www.ijmcs.co.uk) and one of the principal Visiting Lecturers for the *Maritime Operations and Management* and *Maritime Safety and Security Management* MSc programmes.

Seafarer supplying nations use the same word for "safety" and "security"-including:

China	安全 (Ānquán),
Philippines	"seguridad" (Spanish)
Russian	"безопасность",
Ukraine	"безпека"
India	"सुरक्षा" (Hindi)

Sources: survey by [BIMCO](#) and the [International Chamber of Shipping](#) (2015)

Spiros Chiotis



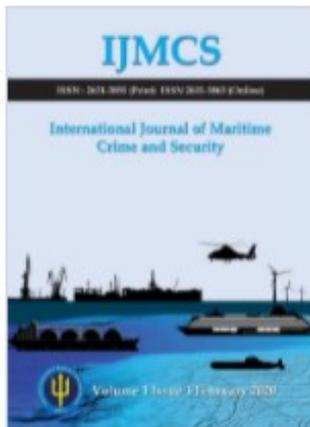
Spiros Chiotis DPA/CSO, HSEQ
Manager at Eurobulk

When **Spiros Chiotis enrolled on the MSc Maritime Operations and Management Programme** he had been in the Shipping Industry for 18 years. He started as a petty officer in the Hellenic Navy and was appointed Designated Person Ashore (DPA) in 2006. Then he moved to a U.S. interests, Piraeus-based company as DPA and Company Security Officer (CSO) with 33 ships under his supervision. In 2011 he took up the position of DPA, Safety & Security department Manager, Training Manager, IT manager, and Maritime Labour Convention (MLC) responsible Officer - in a Greek-owned, shipping company.

We are proud to report that he graduated with a distinction and in 2020 he joined Eurobulk Ltd as DPS/CSO and Health Safety, Environment and Quality (HSEQ) Manager. His dissertation research

has formed the bases of an international journal paper with the title: *The Grim Realities of a Ship Hijacking in the Gulf of Guinea*

The Grim Realities of a Ship Hijacking in the Gulf of Guinea



Volume 02 , Issue 01

Sep-2021

Citation

Spyridon Chiotis, (2021) 'The grim realities of a ship hijacking in the Gulf of Guinea', *International Journal of Maritime Crime and Security*, Volume 02 Issue 01, <https://doi.org/10.24052/IJMCS/V02IS01/ART-3> online PDF Accessed 6 Aug.2021

Keyword

Hijacking, piracy, armed robbery at sea, Gulf of Guinea (GoG), Crisis Management Team (CMT)

Abstract

In the summer of 2019, a Bulk Carrier of 22,000GT with a complement of 21 crew members was at anchor within the territorial waters of a Gulf of Guinea coastal state, 2.5 n.m. from the breakwater entrance to the port, awaiting daylight so the ship could enter the port and commence the discharge of its cargo. At midnight with all the regular security measures in force for the anchorage area, a group of armed men boarded the ship and proceeded to kidnap nine seamen.

The kidnapers abducted the nine-crew comprising the ship's Master, Chief Engineer, Third Officer, Third Engineer, Chief Cook, and four ratings, all of them Filipinos. It was later proven the kidnapers came from a neighbouring state, and during their captivity, the nine men were held on a small island off the borders of the two states. All parties concerned were informed of the incident, and a company specialised in negotiating was appointed. The nine hostages were finally released after 41 days in captivity. Piracy affects shipping for centuries, with some periods of peace. It has returned more robust and aggressive, profoundly affecting shipping in specific geographical areas, exposing maritime trade and the seafarers' lives in danger.

Continued next page (page 6)

Abstract—The Grim Realities of a Ship Hijacking in the Gulf of Guinea continued

From 2008 to 2012, piracy off the coast of East Africa drew the attention of the global community. The measures taken have suppressed piracy, and the incidents have dramatically reduced. On the other hand, piracy and kidnapping incidents in the Gulf of Guinea in West Africa have risen over the past years. The global community seems to tolerate the insecurity in the area, and only a few measures by the European Union and the United States have been introduced. The regional countries have announced measures, so did the continental African Union organisation and some local states individually, but all these efforts seem to be un-synchronised, and the actions of one party disorientate the others. The causation of piracy is not at sea: it is ashore. The spotlights of the initiatives should focus on the mainland. The global community has the expertise, experience, and mechanisms to fight this ancient crime.

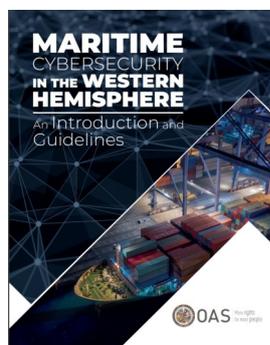
Both the academic and maritime communities have numerous papers about countering piracy, but none that the author has found is based on the details of one incident; they tend to focus on theoretical aspects. The author, being a permanent member of the Crisis Management Team of a shipping company, endured the hijacking of a vessel under its management in the Gulf of Guinea, and part of the vessel's crew was taken hostage and moved ashore into the criminals' hideout. It then became a race against time involving specialised negotiators, the P&I Club of the ship, and a PMSC to negotiate the ransom and its delivery and release of the crew as quickly as possible.

Apart from the first-hand experience of being part of the Crisis Management Team for more than 40-days and nights of a ship hijacking and hostage negotiation process, the author has researched the background widely to piracy and specifically its impact in West Africa. He interviewed members of the crew held hostage and spoken with experts in the field.

The principal reason for writing the dissertation and this article was to share the experiences and insights of a hijacking in the Gulf of Guinea, from the perspective of a shipping company with ships visiting the Gulf of Guinea on a regular basis, so that others may learn from the experiences and hopefully prepare seafarers more effectively for this maritime peril.



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Galani, S. (2021). PORT CLOSURES AND PERSONS AT SEA IN INTERNATIONAL LAW. *International and Comparative Law Quarterly*, 70(3), 605-633. doi:10.1017/S0020589321000233
[Open Access](#)

Established Tradition of Guest Lecturers

MSc Maritime Operations and Management (MOaM) in London and Greece has a well established programme of guest lecturers. During the various Covid 19 lockdowns the lectures were delivered online. While our students missed the human interaction it did mean that students in Greece and London had more choice of which extra curriculum lectures to attend and fit into their busy schedules.

This story by **Marilena Kokonaki Course Administrator in Greece** is about one of the last in-person MSc MOaM events (November 2019 in Greece). It was a guest lecture in Pireaus delivered by [Mr Harry Vafias, President](#) – Chief executive Officer of the Stealth Gas Inc. , a very successful ship-owner and business man.



Harry Vafias

Photo credit: shiptoshore.it

Mr Harry Vafias presentation narrating his family’s history and how he became a ship-owner when he was only 22 years old. He described his company and his work ethic and values. He reflected that the Erika/Prestige cases and associated environmental disasters was around the period that the StealthGas company was established so it was a help for them to promote their ships.

He advised the students to ask nonstop questions during their work, take risks, and look to combining theoretical analysis with practical experience.

The **Questions & Answer** session was particularly inspiring.

Question: Why you choose Japan for ship building?

Answer: Because of the quality of the work and the final ship will have a higher value from one that was built in elsewhere.

Question: How difficult is it to move from dry bulk to tankers and then to LNG?

Answer: It was difficult from dry bulk to tanker but not so difficult from tankers to LNG.

Question: What flag do you use and why?

Answer: Marshall Islands, Nigeria, Panama and more. The majority of the national flags have a very good quality but bad and slow services, so we cannot lose money for delays. The two best flags are Nigeria and Marshall islands. The Greek flag needs 6 Greek officers in each ship so it is difficult to find trained Greek gas officers. They use officers from the Philippines

Question: You are at the top, what does the future hold for you?

Answer: Because he has a family he doesn’t invest as in the past, because he thinks about the risks involved and consequences to his family. He continues working with good quality ships and looks for partners to share the equity and the risks involved in big deals.

[Harry Vafias gives a brief interview to ship 2 shore media on technical issues](#)

Note from the editor. *I have been teaching the Professional Studies Module on the MSc Maritime Operations and Management since 2002. A few years ago a new student asked me if I remembered her father who I also taught!.*

I write this because Dr Mervyn Rowlinson who is Module Leader for Maritime Economics told me, “ Harry was an undergraduate in London and I taught him when he was studying for an MSc. Harry is one of the most successful of young global shipowners. He has become one of the market leaders in Liquid Petroleum Gas (LPG). I’m very proud to be associated with Harry , who is still a nice guy with his feet on the ground, even though he has achieved excellent success in the global market.”

Staff News

Profile [LinkedIn uma-patel](#)

Dr Uma Patel is module leader on the MSc in Maritime Operations and Management at City, University London. She teaches Professional Development and Research Methods. Over the past 17 years she has also had a staff development and quality assurance role on the same programme. Uma is a social scientist and educationalist who has specialised in Science, Technology Engineering and Mathematics (STEM) education. She has a social science degree, a post-graduate certificate in education, a masters degree in computer science and a PhD in technology enhanced learning research. She is an Honorary Research Associate in the Dept. of Science and Engineering Studies at UCL. In 2019 she was awarded membership of [Advance HE](#) as Senior Fellow of the Higher Education Academy.



4th June 2015. Dr Uma Patel in the centre with City Alumni photograph taken in the gardens of British Embassy in Athens



31 January 2020. Left to right: Myrsini Fergadioti (MOaM graduate and 'The Shipping Professionals Network London' winner of the outstanding women in shipping award 2019), Dr Uma Patel and Professor John Carlton. Photo taken on graduation day outside the Barbican.

Editors Notes on Curiosity and Saying Goodbye by Uma Patel

Well this is embarrassing! As the first editor of Making Waves Newsletter (MW) I always intended to do a profile of myself but there was never space. Now in MW #13 I write this as I say au revivor. I live in Bournemouth and I am moving to Bournemouth University in a full time academic role. **It has been a honour and privilege to be part of the MOaM team. I write this piece to motivate our amazing students and show that careers can be crafted as much followed.** How I got here both professionally and personally is a very modern story of curiosity in a changing world.

In my early career I was a school teacher/ head of social science department. In 1990 I moved into a HCI (Human Computer Interactions) research; more specifically the '3D visualization of knowledge bases systems' (ESRC*) and 'Computer Supported Collaborative Work' (DTI/EPSC*). At the turn of the century I combined my dual interest in education and technology by entering the (then) new field of Technology Enhanced Learning. This led me into various roles progressing to Programme Director for different Education and Technology MSc programmes and related research projects including Personalisation of Learning (ESRC*) and Ensemble—Semantic technologies for enhancement of Case based learning (jointly funded by ESRC/EPSC*). At this juncture in my professional life I specialised in science and engineering education and equity / social justice in learning. This is reflected in my teaching and in my research most recently as part of the [Space Awareness Project](#) and the [Youth Equity STEM project](#).

My story is not that of a conventional academic although there are many like me. I am a first generation African Asian and I come from a family of engineers. Aged 10, I was an able helper in my father's radio repair workshop in Mbeya in Tanzania. Arriving in the UK in the late 1960s - school science curriculum was a long way from recognising this kind of science capital in a shy small girl with limited English. I benefited from the post war fully funded British University Education system. An honours degree opened up the world of social scientists studying scientists, engineers and the emerging world of digital technology, the internet and digital learning.

Reflecting on where I come from I think my integrity is tied to the three pillars of democracy i.e. 'fairness, dignity and equality'. 'Fairness' because the student experience depends on it. 'Dignity' because learning is complex and difficult as well as powerful. 'Equality' as in equal access to resources but also equity as in "levelling the playing field". In practice these values are in tension and require judgement and transparency. What does this say about identity, individual agency, and the larger apparatus of society that build capacity for good and somehow also disenfranchise and squander human potential. I am still thinking about that one!

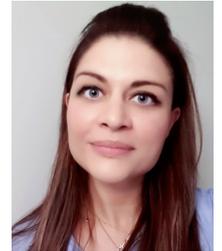
In arriving at this juncture I carry an immense debt of gratitude. I have benefited from and learnt a great deal from Professor John Carlton's (FEng) - leadership and the enduring knowledge, skill, energy and patience shown by Lucy Piechnik and Marilena Kokonaki.

*UK government funding bodies

Exploring the Application of Nuclear Fusion in Merchant Shipping - A Sea Full of 'Stars' -

By Vasiliki Prevena

The global movement aiming to reduce anthropogenic pollution is reflected through regulations, which significantly impact the maritime industry. In this context, various alternative energy sources are proposed as substitutes for conventional fuels in merchant shipping. However, a concept that has not yet been investigated is the use of nuclear fusion energy as the main power source. Nuclear fusion is the process that takes place in the stars, our Sun. The technology is still experimental but promises zero-emissions and virtually unlimited energy.



The focus of this research is the exploration of nuclear fusion as a potential energy source for marine propulsion in merchant shipping.

The aim of this research is to (1) dissociate the terms nuclear "fission" and "fusion"; (2) provide the backdrop of nuclear energy applications in the maritime industry to date; (3) introduce the concept and advantages of nuclear fusion in merchant shipping; (4) identify risks and constraints that might hinder the future use of fusion technology; (5) investigate whether fusion power is able to meet the ship's energy requirements; and ultimately (6) evaluate a potential range of cost that would render investing in fusion technology worthwhile.

The findings provide evidence that the use of nuclear fusion in merchant shipping could be feasible, once continuous fusion energy production is achieved. Findings also suggest that people are mostly unaware of this experimental technology and are negatively predisposed to the term 'nuclear'.

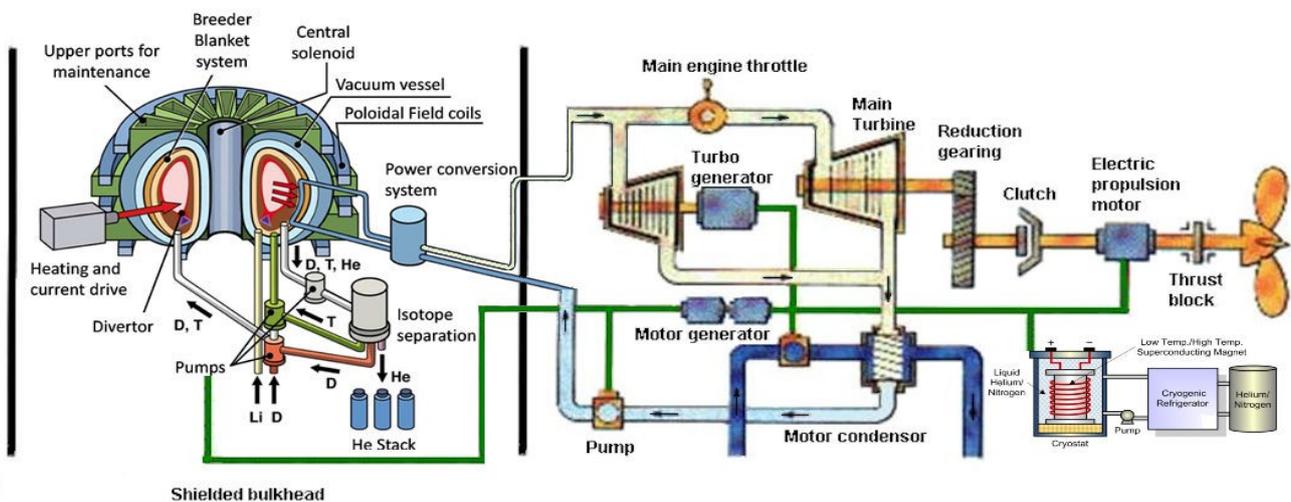


Figure 21. Conceptual design of fusion propulsion. Source: Author combining figures from FAS a (no date,) KIT (no date) and Nadeem et al. (2009)

From Dissertation page 56

The main conclusion drawn from this study is that nuclear fusion technology generates vast amounts of energy while being inherently safe and has the potential to become a commercially viable solution for merchant shipping in the future.

This dissertation recommends collaboration of the regulatory bodies along with a thorough reassessment of the relevant regulatory framework. In addition, a systematic techno-economical study would shed further light on fusion reactor application in merchant ships. Communicating the real characteristics of fusion is imperative to eliminate the negative predisposition of the general public. Finally, the re-branding of fusion power is essential and might even exclude the term 'nuclear' in order to differentiate nuclear fusion from nuclear fission reactions since the latter are predominantly associated with disastrous events.

Dissertation Showcase MSc in Maritime Operations and Management

Hybrid Electric Plug-in Propulsion: A Case Study of Greece's Inter-island Shipping

By *Eleni Karagianni*

In the last decade, the technology regarding the application of the hybrid electric plug-in ships (HEPS) has become the center of attention for both academia and industry. The reduction of the GHG emissions produced by the shipping industry is the primary target of IMO (International Maritime Organization) and set at 50% by 2050. Since the diesel engines have the ability to operate very effectively with the support of batteries and electric motors, a HEPS can be regarded as a potential solution. Furthermore, fuel consumption is additionally reduced, and the range of zero-emissions is extended when a HEPS operates on full electric mode. This is achieved by utilising large capacity batteries charged by a shore power system.



This project set out to investigate the potential application of hybrid electric plug-in vessels for Greek inter-island shipping and in this context to identify the type of ships to be the first candidate for use of such a system. **To examine this hypothesis**, a case study was generated from secondary data obtained from databases containing real-time data. This was analysed to identify which vessel type of the ones that met the particular criteria, are candidates to potentially comprise batteries as part of its propulsion system. The outcome has revealed that ferries are the ideal type and the reasons for this are considered systematically. **Overall, the results have shown** that the operation of hybrid electric plug-in ferries for the inter-island services with plug-in facilities with renewable electricity generation in the relevant islands with batteries for both ship-based and shore-based electricity storage is a feasible option

Assessment of the design of a hybrid propulsion ferry based on hydrogen fuel cells and examination of technical and economic feasibility including the hydrogen production facility

By *Christos Chavenetidis*

The reduction of the GHG emissions produced by the shipping industry is the primary target of IMO (International Maritime Organization) and the environmental community and regulations are moving in this direction. The aim for 2050 is to decrease by 70% of the CO₂ emissions per transport work compared to the 2008 levels.



The dissertation focuses on a case study of a hydrogen fuel cell Ro-Ro trading in the Aegean. The power plant of the ship contains also a battery system for peak load shaving to obtain higher efficiency of the fuel cell operation. The production of hydrogen is achieved by an on-shore electrolysis facility that is fed with seawater through desalination. The hydrogen produced is stored in hydrogen tanks onshore assisted by a compressor until the next refueling through the dispenser and cooling system. The whole hydrogen production facility is powered by solar energy through PV (photovoltaic panels) and PTC (parabolic through collectors). **The research is based** on both literature review and industry-based data to examine the technical and economic feasibility of the project. **This research produced:** (1) the operation profile of the power plant of the ship that consists of the fuel cells and the batteries among the auxiliary components for the operation of the fuel cells and the ship needs when sailing, while maneuvering, and in port; (2) the design of the ship for the specific route including the requirements for the hydrogen and battery storage is of essential value; and (3) economic feasibility considerations for the lifetime of the ship, including the CAPEX and OPEX of both the ship and the on-shore hydrogen production facility. **Three main conclusions** are drawn from this research. First, although hydrogen fuel cell propulsion is technically feasible, from the economic perspective, it is only profitable for small ships. Second, while technology of the fuel cells seems promising, further development is needed in the storage section to reduce the volume required for the storage of hydrogen. Third, funding and research are needed to promote green technologies capable of replacing the existing fossil fuel propulsion system in any kind of ship.

Dissertation Showcase MSc in Maritime Operations and Management

The Potential of the Northern Sea Route: Competitiveness, Navigational and Safety Challenges

By Theodoros Boutzalis

One of the consequences of climate change is that sea-ice extent in the Arctic Ocean recedes rapidly. As a result, the Northern Sea Route (NSR), a shorter sea connection of the Atlantic and Pacific Oceans, emerges as an alternative route for several ships for a widening summer period. Moreover, the Arctic's ice melting rate and sea-ice extent projections indicate that ice conditions will keep on improving for navigation. Focusing on decision making and decision makers the project aimed to



- To evaluate the competitive advantages of NSR as an emerging sea route.
- To critically examine the navigational and safety hazards entailed in Arctic shipping.
- To survey and assess the perception of decision-makers regarding the safety and potentiality of NSR.

Reduction in distance may imply savings both in sailing time and fuel consumption. However, the exceptional costs that are involved in Arctic shipping require a more thorough assessment to evaluate if transit through the NSR would be more profitable in comparison to the Southern Route. Meanwhile, operation in the Arctic Ocean entails particular navigational and safety challenges. These challenges are related to the presence and the particularities of polar ice, but also other significant challenges will be encountered, such as those caused by the remoteness of polar waters. The Arc7 ice-class vessels, designed to navigate in up to 2 m thick ice, operate regularly within NSR in the last few years and are proof that if a vessel is properly prepared in all aspects, then operation within NSR is feasible at an acceptable risk. However, these are specially built for this purpose and thus cannot be compared to conventional vessels. Finally, the high expectations for the potential of NSR during the last decade have not been met and transits for tankers and LNGs remain scanty. Nevertheless, the results of the survey contacted on this paper show that a marginal majority of the decision-makers remains optimistic for the potential of the route, for the near future.

Future Vetting of Bulk Carriers: Impact on Bulk Carrier Shipping Companies

By Athanasopoulos Athanasios

In contrast to the Tanker sector where Tanker Management and Self Assessment (TMSA) has been implemented and enforced for years, the Dry bulk sector is missing a self-assessment standard through which ship-owners / operators can evaluate their performance. To fill this gap, INTERCARGO and Rightship have cooperated and developed a new standard called Dry Bulk Management Standard (DryBMS).



The DryBMS is at the draft stage. The investigation in this project set out to: (1) understand how this standard would work in practice and to evaluate the future impact that such a standard might have on bulk carrier shipping companies; and (2) to understand how this standard might be used by charterers. Following expert advice and analysis a questionnaire was used as a research instrument in collecting data from shipping companies that operate bulk carriers and from charterers. The analysis identified similarities, differences gaps and ambiguity to discuss 'Actions for Improvements by Subject Area', 'Opinions of the different parties (Ship-owners/operators and Charters)', and the 'Impact on Company Procedures'. As a concluding observations - it seems that even though bulk carrier shipping companies need further actions towards enhancing their processes and operations, in order to try and meet the expectations of charterers, most of them are open to make changes and try to aim for a higher level of achievement as set by the standard (DryBMS).

Graduate Profile

Tianshuang Tong Trainee broker on the tanker desk at Clarksons Platou London

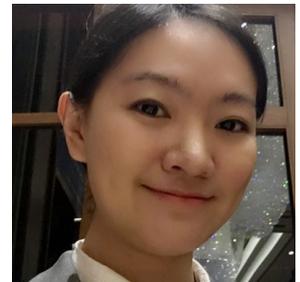
Tianshuang was awarded an MSc (Distinction) in Maritime Operations and Management in 2020. In September 2019 when she first arrived at City, University of London Tianshuang introduced herself in her Moodle profile like this.

“This is Tianshuang, and the characters in Chinese are '天爽'. I usually use ‘Oci’ as my English name even if it is not quite ‘English’. I have a Bachelor degree in Society, Culture and Media from University of East Anglia, and a master degree in Social Science from the Hong Kong University of Science and Technology. I worked as an administrator in the China office of Illinois Institute of Technology, followed by being a project manager in a MOOC platform called XuetangX.”

The academic year 2019-20 was like no other. Here she writes about her time at City, University of London and reflects on positivity and working hard even when the future is an unknown.

After graduating I worked in the education industry but found myself continuously trying to find a new pathway that has an international perspective and more scope for personal and career development.

The description of MSc in Maritime Operations and Management was very attractive. Starting the course with zero experience in the maritime industry I was both excited and apprehensive about my new journey. All the lecturers from the course, plus the professional mentoring programme of the University encourage me to achieve the best possible result during my time there. It was a dramatic year starting with the campus experience and then studying wholly online due to the coronavirus outbreak. With continuing support from the University I always had a clear idea of what I should be doing next as the academic year progressed. I believe that this clarity of structure and anchoring is critical for academic success. I focused on **positive thinking and tireless working** – it is a challenging MSc with a steep learning curve – that is what makes it worth having.



I am currently working for Clarksons Platou as a trainee broker at the tanker desk in London. The shipping industry is a global business, now I feel I’m getting involved. With my background in education and social sciences I understand multi-culture workplaces and have experience of open-minded problem-solving, and skills in communication and negotiation. The MSc Maritime Operations and Management programme has given me wider ranging knowledge and skills specific to the maritime industries. These are all the valuable assets that I will be drawing on in my future career progression.

I hope my experience can encourage more young people who want to “shuffle” their life but still hesitate to take the first step. **The most important thing is to keep the faith and be confident in ourselves, just as we have had to during this worldwide pandemic period.**

[Sign up](#) for a Clarksons Platou Career Opportunities Newsletter

Elli Anemogianni-Sinanidi PhD student City, University of London



Elli Anemogianni-Sinanidi was awarded an MSc (Distinction) in Maritime Operations and Management in 2019.

Elli is from a social science education background and enrolled on the MSc MOaM with little experience of the maritime industry. She has now secured an unconditional offer to begin doctoral research from October 2021 at City, University of London under the supervision of Professors John Carlton and Professors Tong Sun with Peter Cook as an expert consultant. Her work will make her a leading expert on the ‘Design of Autonomous Ships to Achieve Resilience and Safety in Operations: The Integration of Security Threats into a Unified Approach.’

Graduate Profile

Captain Kostas Simotas

Port Captain and Marine Superintendent at Order Shipping Co. Ltd.

Kostas was awarded an MSc (Merit) in Maritime Operations and Management in 2020. In September 2019 when he first arrived at City, University of London Kostas introduced himself in his Moodle profile. Here is part of what he wrote:

“I graduated from the Merchant Marine Academy (School of Captains) in 2011 and then i worked as 3rd , 2nd and Chief Officer in Bulk Carrier vessel's . In 2019 I obtained my Master Mariner Licence. The main reason I choose a career on the Maritime Industry was my father , as he also used to sail , and by sharing his passion for the sea and his experiences with me he has inspired me to follow that path. As for the biggest achievement of my life ...is yet to come...!”

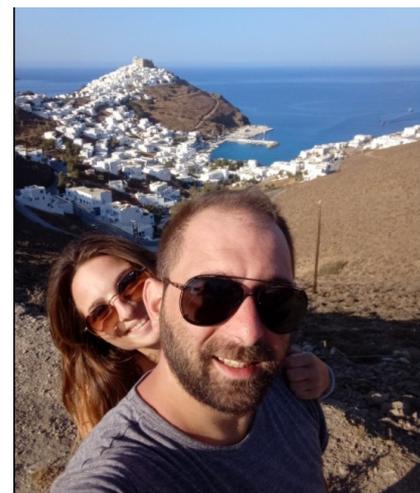
Here Kostas writes about his journey.

I am a Port Captain and Marine Superintendent at Order Shipping Co Ltd. a traditional, family-driven Greek maritime corporation, with almost 40 years of experience and continuous presence in the maritime industry. After graduating from the Merchant Marine Academy I have risen through the ranks until I obtained my Master Mariner License in 2019.

What I have learnt from my seagoing experience is that the secret of everyone’s career is desire. In the middle of the Ocean, nobody cares about your family background or hidden talents. You just have to do your job to ensure the safety of your fellow seafarers! I believe to become a Captain and command a vessel you need to have the desire to acquire a holistic knowledge of the industry and share it with others.

This ‘can do’ mindset motivated me to pursue a Master’s Degree. My next career goal was a managerial shored-based position in the maritime industry. In the MSc in Maritime Operations and Management at City, University of London I found the right programme with the reputation I was looking for.

The course was intense and demanding, thus it required full commitment throughout the academic year, since the modules are carefully designed to explore key principles across wide ranging disciplines on which the maritime industry depends. Beyond the educational framework, the guest lectures and opportunities for attending networking events enriched me with the skills of active listening and social perceptiveness which are essential in the diversified and multicultural maritime industry. What is more, the course was completed amidst the Covid-19 pandemic, yet the guidance of the staff steered the whole group to respond to the changing circumstances and develop the necessary adaptability skills to overcome all the challenges. The most important skill I obtained during the course is the forward thinking mindset, which was imparted to me during my dissertation on ship energy efficiency technologies, by my supervisor Dr. Zabi Bazari.



Captain Kostas Simotas and Eleni Karagianni * see note below

Glimpsing into the future, I want to look back on my career and be proud of the effort I made to step up to the challenge and that I made the most of all the opportunities that were on offer.

The advice I would like to pass to future students is this: spare no effort! Realise that studying for a Master’s Degree is not play time, it is work. Don’t try to merely memorize, try to increase your depth of understanding. Expand your network. Use your acquaintances to advantage, but do not take advantage of them (honesty is the best policy). Focus on becoming irreplaceable at your work; rewards will follow. Finally, don’t forget to take time to enjoy yourself!

*Eleni Karagianni was awarded an MSc (Distinction) in Maritime Operations and Management in 2020. You can read the abstract of her dissertation on page 12. **Editors note:** I have permission to share that Eleni and Kostas are a couple since October 2019 when they met on the MOaM programme. Now that is a result!!! I’m thrilled for them.*

Current Student Working and Learning

Christos Papadopoulos (Greece cohort January 2021)



At the beginning of the programme January 2021 Christos wrote:

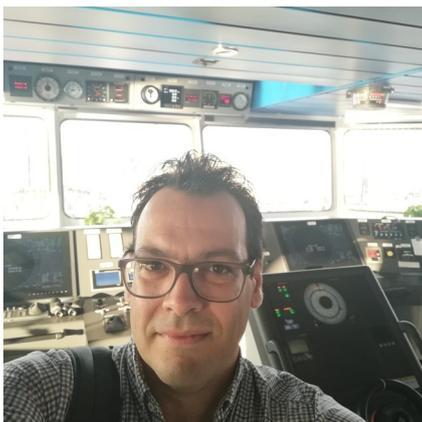
“My name is Christos Papadopoulos and I live in Greece, Athens. I am a Naval Architect & Marine Engineer (MEng). I have been working for two and half years in Ballast Water Management System retrofits, at first for a BWTS leading manufacturer and now for a leading engineering company in Greece. I believe that my biggest achievement is the design of a BWTS installed in tankers’ engine room. I want to be challenged in order to deliver results beyond my temporary capability and thus, gradually evolve. I hope that one day I will work as a Senior Surveyor for a major Classification Society. “

Half way though the programme July 2021 Christos writes:

“In shipping when you think you know enough, think again. This came to mind because Naval Architects from NTUA in Greece study a 5-year Master program and when they graduate they (including me) believe that they know ships and shipping business and that they do not have to study anymore. This program showed me that shipping business is a very wide subject and being a good professional (either in technical or other department) is about understanding what your role is in the greater picture. This is what gives value to your work, teaches you humility and responsibility but also broadens your imagination and problem-solving abilities. “

After passing all the taught modules the MSc Maritime Operations and Management students move onto the Dissertation (Project) phase of the MSc. The Greece cohort are about to embark on the Project module which is assessed by a Dissertation

Captain Andreas Papasofroniou (Greece cohort January 2021)



At the beginning of the programme January 2021, Andreas wrote:

“My name is Andreas Papasofroniou and I am from Cyprus. However, my permanent residence is in Athens while spending most of my life offshore/on board.

I graduated from Merchant Marine Academy in Greece at 2005 obtained Captain Class C’ license. Since then I am sailing worldwide on board tanker vessels.

In 2015, I had the honour to sail in the higher rank of Merchant Navy, as a CAPTAIN Class A’ , which I considered my biggest achievement so far. Since then, I am still sailing with tankers with a short break in 2018 where I joined the operation department of a shipping company in the role of Tanker Operation. However, after six successful months doing that, I decided to resign from as I

realised that this was not my career expectation.

The reason I have decided to attend Master degree in Maritime Operations and Management from a reputable university is to expand my knowledge and skills and equip myself with more options in my future career.

My ambitions for the future are to graduate from City University with an MSc and pursue a managerial role in a shipping company.”

Captain Andrea has been working while studying. See page 16 for images of his ship MT SPARTO entering new Panama Locks on November 2020 and photos of his last new building vessel 'MT LORD BYRON 21' just before the sea trials commence on March 31st 2021.

More about Captain Andreas Papasofroniou on page 15

What do our working students do while tackling their coursework assignments and preparing for exams? Captain Andreas Papasofroniou is in a class of his own.

Look Lock Ahead

RIGHT.

Captain Andrea's ship MT SPARTO entering new Panama Locks on November 2020 .

Zoom into the image to see a stern view of the loaded Sparto.

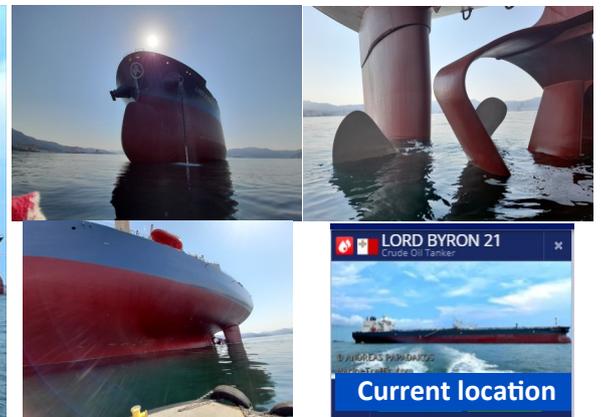
Note the large funnel - includes Exhaust Scrubber System - Very Green!



Steady Nerves



Notice the mast of the assisting tugboat (difficult to spot below the bow) operating down there in the diminishing space between the tanker and the lock gates - Strong nerves needed!



Captain Andrea's latest new building vessel " MT LORD BYRON 21" before the sea trials commence on March 31st 2021

Research and Programmes in Maritime Studies

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