



# Making Waves

Newsletter for Maritime Studies Students and Graduates

January 2016

## City University London to join the University of London

City will become one of the University of London's self-governing Colleges following the positive recommendation made by its Collegiate Council. City University London was founded in 1894 as the Northampton Institute. In 1966 the Institute was granted 'University' status by Royal Charter. In 2016 City University London was [ranked at 53rd](#) in the Times Higher Education's list of the most international universities in the world. The University of London was founded by Royal Charter in 1836 and is one of the oldest, largest and most diverse universities in the UK. It is a collegiate University currently consisting of 17 self-governing Colleges and 10 other smaller specialist research institutes.



Sir Richard Dearlove (left) and  
Professor Sir Paul Curran

The move will see City become one of the federation's self-governing Colleges. City University London will continue to set its entrance criteria and examinations, award its own degrees and offer independent services to students. City intends to join the University of London in August 2016.

Commenting on City joining the University of London, Sir Richard Dearlove, Chair of the University of London's Board of Trustees and former head of MI6 noted that: "City brings unique links with many of the institutions in the City of London including the Lord Mayor's

Office, the Livery Companies and businesses in the Square Mile. City joining the federation demonstrates that the University of London continues to be a focus for academic excellence in this global capital of higher education."

Professor Sir Paul Curran, Vice-Chancellor of City University London, observed that: "We will retain our historic strengths, professional credibility and deep-rooted City of London heritage while we strengthen our international profile and expand our research and education capabilities."

Professor John Carlton FREng., said: "this has to be good for City University London, and in the context of our Maritime Masters Programme in London and Piraeus, it will clearly give an added bonus to our students' achievements."

Future 'Making Waves' Newsletters will report on the effects of these changes.

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## Passing Knowledge to the Next Generation

### The Encyclopaedia of Maritime and Offshore Engineering to be published in 2016

It is easy to assume that knowledge is stable—that everything the modern maritime industry has learnt will endure for millennia. Students who have studied the ‘Management Module’ on the ‘Maritime Operations and Management Programme’ know that knowledge can be more fragile and transient than many assume. Experts get older, old storage media become obsolete and knowledge gets lost. The Encyclopaedia is a form of knowledge that has global currency even in the digital age. Historically encyclopaedias have been researched and written by experts in the field. Works of encyclopaedic scope aims to convey the important accumulated knowledge that needs to be passed on to the next generation.

The **Encyclopaedia of Maritime and Offshore Engineering** will provide an unparalleled major reference work. It will cover the design, construction and operation of ships; offshore installations, and other marine structures used for transportation, exploration and exploitation of ocean-based resources including oil, gas and renewable energy. It will embrace all of the disciplines of engineering and naval architecture that are found in the complementary maritime and offshore industries.

Advances in ship technology, the growth of the offshore energy sector, and increasing activities in the arctic and ultra-deepwater environments all highlight the need for an up-to-date reference text. This publication will be divided into three parts: ‘General Section’; ‘Maritime Section’; and an ‘Offshore Section’. Common aspects will be separated out into the ‘General’ section and will cover topics like historical background, marine environment, materials and systems engineering. The ‘Maritime’ section will cover topics like ship types, resistance, marine engine shafting and regulations, propulsion and propulsors. The ‘Offshore’ section will include topics like safety and reliability, types of structures (fixed, jack-up, and floating), as well as ocean mining, ocean utilisation and ocean renewable energy.

The full editorial team and contributing authors are internationally renowned engineers, scientists and practitioners. Both the academic and industrial sectors are represented. A number of sections in the encyclopaedia have been contributed by City University London staff, and postgraduate students.

**The Encyclopaedia of Maritime and Offshore Engineering will be published by John Wiley and Sons, Ltd.**



The team is led by three editors-in-chief:

**Europe:** [Professor John Carlton FREng](#).

Professor of Marine Engineering, City University London  
Former President of the Institute of Marine Engineering, Science and Technology (IMarEST), 2011-12.

**North America:** [Dr Paul Jukes](#)

Paul Jukes and Associates, Houston, Texas  
Adjunct Assistant Professor, Subsea Engineering, University of Houston.

**Asia:** [Professor Yoo-Sang Choo](#)

Programme Director (Offshore Engineering); Director (Research), Centre for Offshore Research & Engineering; Lloyd’s Register Educational Trust Chair Professor – National University of Singapore. Former President of the Institute of Marine Engineering, Science and Technology (IMarEST), 2008-09.

## Past, Present and the Future of Marine Propulsion and Power

A preview of [Professor Abdulnaser I. Sayma's](#)\* paper on Gas Turbines for Marine Applications. Professor Abdulnaser I. Sayma is Professor of Energy Engineering in the Department of Mechanical Engineering and Aeronautics, City University London. The full paper will be published in the 'Maritime Section' of the Encyclopaedia of Maritime and Offshore Engineering (see page 2 of this Newsletter).

**Reciprocating engines** have been the dominant machines used for the propulsion and power of merchant ships for over a century. Approximately 96% of ships used in civilian applications over 100 gross tons are powered by diesel engines. Oil tankers, container ships and ore carriers are usually powered by two stroke reciprocating engines. Cruise ships, ferries and coastal shipping are frequently powered by medium speed engines because these engines are more compact and have a much lower height which minimizes intrusion into the passenger or cargo space. There are a number of reasons for the prevalence of these engines:

- They feature high efficiency over a wide range of operating conditions and are able to run on heavy fuel oil manufactured from the residue of the oil refining process, despite its impurity. The efficiency comes from the low price of such fuel.
- The diesel engine is a well-established technology able to provide marine propulsion and auxiliary power generation reliably.
- There are well-established repair and spare part networks around the world. This also yields related cost reductions.
- The technology is well understood and training of skilled work force is well established around the world.

However and despite continued design improvements, diesel engines still produce relatively high levels of harmful emissions such as nitric and sulphur oxides (NO<sub>x</sub>, SO<sub>x</sub>), volatile organic compounds and particulate matter which are currently the subject of continuously stricter regulations, and from Year III regulations may need auxiliary exhaust cleaning devices.

**Gas turbines** have been established as the main power plant for all medium to large aircraft propulsion due to their superior power to weight ratio. They also have a significant and growing share in the power

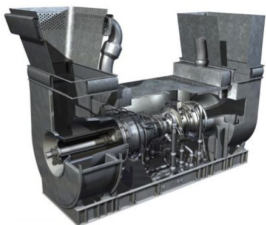


Figure 1: LM2500 aero derivative marine gas turbine. Courtesy of GE.

generation sector as a result of the relatively low initial cost, short installation time, high efficiency when operated in combined cycle configurations and low emissions compared to other fossil fuel power plants. All main gas turbine companies nowadays have a range of aero derivatives on offer with some dedicated for marine propulsion and power generation. Examples are GE LM2500 series (Figure 1), Rolls Royce MT7 and MT30 (Figure 2).

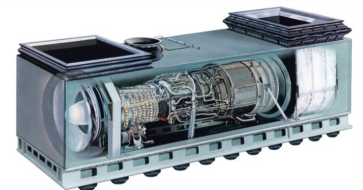


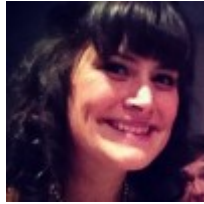
Figure 2: Rolls Royce MT30 marine gas turbine. Courtesy of Rolls

However, their share in the marine propulsion sector is small because of the more economically viable well-established diesel engine systems. Gas turbines have lower efficiency and poor part load performance. They are however favoured when space and weight are at a premium or when high speed is required. It is conceivable that their use may increase as emissions restrictions get tougher. Professor Sayma's article gives an overview of gas turbine technology aimed at ship propulsion. Future prospects of carbon neutral zero emissions gas turbine systems are also explored.

**Closing remarks from the paper:** The increased pressure in introducing legislation to control emissions may reduce the cost gap between the two options. These can be enhanced, however, in combined cycle installations where the exhaust heat is used to develop additional power. A number of promising systems based on gas turbine technologies may offer alternative clean ship propulsion driven by some success in land based applications. These include the use of Hydrogen, compressed air storage, and biofuels, as well as carbon capture and storage.



## Master of Science in Coastal and Marine Engineering and Management



Laura Robichaux

Title of dissertation:

Upgrade Prioritization for the Morganza to the Gulf Flood Protection System.



Thomas Wills

Title of dissertation:

Operational Windows for Tidal Energy Installation and Maintenance.

## An international career in moving dirt! From the CoMEM class of 2015/16 a story by Kyle McElroy



After graduating from the University of Texas with a degree in Mechanical Engineering, I fell into the maritime industry in 2009 when I started working with Great Lakes Dredge and Dock (GLDD) as a field production engineer. I worked with GLDD for five years on beach renourishment and channel dredging projects and I was amazed at how something as simple as moving dirt resulted in such complicated and dynamic work.

When I found the Coastal and Marine Engineering and Management (CoMEM) Erasmus Master's program I was instantly drawn to the fact that I could combine my engineering background with my growing interest in maritime management. Also, studying in three countries over two years with classmates from all over the world has greatly improved my international understanding of coastal issues and management. Even neighbours can have dramatically different views and opinions on the most pressing problems affecting their community!

I often get asked about my plans after the programme and if I want to return to US or stay abroad. While the answer to that question is not simple, I am excited to be studying on an academic programme which opens doors to such a global industry. The idea of working anywhere in the world is an actual possibility.

The Erasmus Mundus Master Course in Coastal and Marine Engineering and Management (CoMEM), is a two-year English taught international Master's programme. During the programme, students study in two or three different countries depending on the individual track of study. **Applications for 2017 is open.** <http://www.ntnu.edu/studies/mscomem>

## Student of the Year Award by the Honorable Company of Master Mariners



On 24th November 2015 Professor Carlton wrote to James Anderson: "From the four high performing students that were put forward to the Honourable Company of Master Mariners, the Master has chosen you due to the quality of your dissertation and overall performance on the course, as the MOaM Student of the Year 2014/15. Well done! ". He replied "This is the most fantastic news, I am absolutely delighted and honoured. I thoroughly enjoyed my time on the course, which has benefited me greatly as a person and my company. "

The prize will be awarded on board the H. Q. S. Wellington, the livery hall of the [Honourable Company](#), at a ceremony scheduled for Wednesday 9th March 2016. Part of the award is a cheque for £500.



## “The benefit of studying in your native country is that your life does not stop.” From the Greece class of 2015/16 some reflections by Vasileios Christos Rampos



Vasileios Christos Rampos

I am privileged to be part of the first MOaM cohort in Greece. I am a second officer in LPG vessels and last year it was hard to imagine studying in this way. It would have been impossible for me to take time off to study in London and stop my career for a few years. The benefit of studying in your native country is that your life does not stop.

The modules taught in Greece have been a huge success so far. The group in Greece is from a variety of backgrounds and this makes the discussions practically creative and rewarding. The lessons are during weekends which is very convenient so that even if I am not working I have time to attend training seminars that I have to follow for my career in shipping.

The style of teaching on all the modules is very dynamic. There is genuine dialogue between the lecturers and the students. This is very different from my experience of the classroom in Greece. Of course the hard part is the essays and reports but I also find them very interesting and another means of learning. The part that I am enjoying the most is presentations. Students presenting to each other is a powerful motivator for learning. To tell you the truth, I am fascinated by the maritime industry but until now I have not had the audience of like-minded people to discuss the latest issues and challenges. I am looking forward to the rest of the course.

## Internship Opportunities for Talented Individuals writes Mike Powell Head of Marine Operations at Union Maritime Ltd.



Mike Powell

[Union Maritime Ltd](#) (UML) has become the largest independent product tanker owner in the UK with an operated fleet of 27 tankers with a total deadweight in excess of 800,000 tonnes. Our origins are in Nigeria where we began shipping fertilizer cargoes in the 1980s. In 2006 UML grew its tanker fleet in West Africa supporting the growth in cargoes being traded into Nigeria. UML now operates the largest fleet of product tankers in West Africa supporting product movements and is the only tanker company in West Africa with a fully integrated logistics system. Around this core trade UML has developed global trade lanes involving clean petroleum/chemical products and vegetable oils, expanding its operations far beyond West Africa.

The continued success of any company in any area depends upon identifying and promoting talent. This statement is particularly true of deeply specialised businesses such as those engaged in shipping. UML is a growing and ambitious shipping business and this results in opportunities for talented individuals to demonstrate their suitability to join us as we grow. UML considers it also has a responsibility to those looking to develop their careers in shipping and therefore is very pleased to be associated with City University and those studying for the MSc in Maritime Operations and Management by offering internship opportunities.

Within UML we are able to offer our interns experience of chartering and marine, technical, and commercial operations in the clean product/chemical tanker segment. Our intention is to ensure interns obtain a broad range of experiences consistent with their own interest and the needs of UML.

**We encourage you to apply for an internship.** The placement will be competitive and involve nomination by staff and an interview.

**Please contact Professor John Carlton for more details. I look forward to welcoming the successful applicants to UML later this year.**

## Graduates 2014-15

### Master of Science in Maritime Operations and Management

James Anderson\*  
Fokionas Dafalias  
Ibrahim Mustafa Duran  
Kyriakos Gavalas  
Alexandros Gogis  
Inggit Prameswari-Hardiman  
Xunbo He\*  
Hilmi Berk Ilgaz  
Maria Kapetaniou  
Eleni Kaplani\*  
Kalle Kivilehto  
Thomas Klapanis  
Dimosthenis Kontakos  
Thomas Kotoloulis  
Evangelia Moutafidi  
John Nikas  
Ryosuke Ogi\*  
Aikaterini Eleni-Panagiotopoulou  
Philippos Papadimitriou  
Betha Agus Primadewi  
Theodoros  
TsoAthanasios Savvas  
Ronald Silalahi  
Nisan Stampouliau  
ukas-Zoumpas  
Jonathan David Tucker\*  
Jessica Barbara Willan  
Tommaso Zauli

### Master of Science in Coastal and Marine Engineering and Management

Laura Robichaux\*  
Thomas Peter Roberts Wills

\* with distinction

## We made it . Graduates 2014-15



Graduation day, 29th January 2016. The lecturers had the pleasure of meeting friends and family . Many of our graduates could not be with us. If you are one of those graduates we would love to feature photos of you with your



The City Alumni Network Once a part of City, Always a part of City

## Lifetime Achievement Award for Professor John Carlton FEng



Left to right: John Labdon , John Carlton and Tim Kent

In April 2015 Professor John Carlton was honoured by the Maritime Industry with a Lifetime Achievement Award that recognised his contributions to design, development, research and trouble shooting into ship propulsion engineering and his leadership as 109th President of IMarEST. Professor John Carlton was elected a Fellow of the Royal Academy of Engineering in 2011.

The Lifetime achievement award was presented by Tim Kent Technical Director of Lloyds Register and John Labdon Chairman of Riviera Maritime Media, at the [annual Marine Propulsion Conference](#).

### Khalid

Over the past in the way they segments of owned, specialised and



Today the challenges, one workforce. The

dynamics, transport planning and financing, terminal operations and technology, and business and logistics processes. The port's module in MOaM has been designed in ways that offer this cross-disciplinary capacity and a full understanding of the complex issues facing the industry today.

The module is being taught by Dr Khalid Bichou, an international authority in the field. Dr Bichou has over 25 years of international experience in the industry including periods in executive positions and as Consultant and Advisor to public and private bodies. He also holds several visiting professorship and teaching positions at several prestigious universities including City University. He is the founder of and adviser to *PORTeC* at Imperial College London and the *Global Port Research Alliance* between 9 leading international universities.

### Bichou, Module Leader (Ports)

three decades, ports have undergone (and are still undergoing) major changes are planned, financed, developed, operated, managed, and regulated. Several the port industry have seen fundamental shifts from the widely publically-monopolistic, multipurpose and labour-intensive facilities to the highly technologically advanced port-terminals with high levels of internationalisation, deregulation, and private sector participation.

global port industry has huge opportunities but also faces a number of of which is the skills gap and the lack of highly qualified and educated port analysis of port systems requires a deep understanding of maritime and trade

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## Guest Lecture Series 2016

Maritime Security Issues	Mr Michael Everard.	07/03/2016 at 14.00-17.00	C303 (Tait Building)
Marine Diesel Engines and Equipment	Mr Philip Martin	18/03/2016 at 14.00-17.00	C310 (Tait Building)
Ship Operations	Mr Malcolm Parrott	31/03/2016 at 14.00-17.00	R202 (Franklin Bld.)
Managing a Shipping Company.	Mr Michael Everard	04/04/2016 at 14.00-17.00	R202 (Franklin Bld.)
Insurance Broking and Setting Insurance Rates.	Mr Philip Armstrong	08/04/2016 at 12.00-15.00	R202 (Franklin Bld.)

Lectures series open to Alumni. For more information email [@city.ac.uk](mailto:Lucyna.Piechnik@city.ac.uk)



## MSc Maritime Operations and Management Class of 2015-16 LONDON



## MSc Maritime Operations and Management Class of 2015-16 GREECE



### For Information

The photographs were taken two weeks apart.

Distance between London (England UK) and Piraeus (Attiki, Greece) is :

2388.94 kilometres

1484.42 miles

1289.07 nautical miles.

**Note** the distance is straight line distance which may be called flying or air distance. The calculation comes from:

[distance.calculator.globefeed.com](http://distance.calculator.globefeed.com)



## Lucyna Piechnick Postgraduate Officer London UK

My name is Lucyna but everyone calls me Lucy. I joined the lovely Postgraduate team in October 2015 as Course Officer for MSc Maritime Operations and Management. Not having previous knowledge on the subject I delved into the programme specification and all other information available to me including lecture materials and I am amazed how interesting the programme is. Two of the lectures particularly caught my attention; Environmental Issues as this topic is close to my heart and Ship Design. I was very



Lucyna in London next to a working red telephone box

fortunate to be shown around the university labs where tests have been carried out on ship propellers and it was very interesting to learn how little variations can mean huge changes in the outcome of the tests.

## Marilena Kokonaki Postgraduate Officer in Piraeus Greece

My name is Marilena and I am the course officer for MSc Maritime Operations and Management in Greece. I am delighted to be part of Postgraduate team. I took a lead in marketing the course in Greece and it has been rewarding to recruit students and now see them studying on the programme.

Recently I visited London and had the pleasure of meeting Lucyna and staff and students in London. I am a librarian by training and am particularly interested in the resources used to teach the course especially the cases from Industry. The teaching in Piraeus, Greece takes place in the Lloyd's Register building located on the sea front, a great location for Maritime studies. I am fortunate to work with such interesting staff and students.



Marilena in Piraeus in front of the marina in Piraeus



### Annual Programme Dinner on Board HQS Wellington

**Venue:**

HQS "Wellington"  
Temple Stairs  
Victoria Embankment

**Date: 8th April 2016. Time TBC**

Invitation to this annual event is extended to Alumni (places are limited) For expression of interest for 2015 email [Lucyna.Piechnik@city.ac.uk](mailto:Lucyna.Piechnik@city.ac.uk)

## Suvani Mokhtar writes about international networks and the rewards of working hard and embracing opportunities.

*Suvani Mokhtar is Superintendent of Management System at MISC Kuala Lumpur Malaysia, the third biggest shipping conglomerate in the world. Suvani is a recent alumni of the MSc in Maritime Operations & Management at City University London. She graduated with a distinction in July 2015. Here she writes with some candor about her achievements and ambitions. Uma Patel [Editor]*

After graduating with a degree in Mechanical Engineering, I joined the maritime industry as a Safety Executive in a Malaysian Offshore Vessel ship owner company. My next move was to join Schlumberger as a Seismic Engineer sailing on survey vessels performing Marine Seismic Acquisition, a highly critical oil & gas exploration operation. After 4 years as a Seismic specialist, I began to offer my services as a freelance with CGG Veritas. The seven years I have been sailing onboard seismic survey vessels gave me the opportunity to explore the world, covering 5 out of 7 continents and visiting 31 countries.



Suvani Mokhtar MIMarEST  
Superintendent at MISC Berhad,  
Kuala Lumpur, Malaysia Oil &  
Energy

In 2013 I took time out to study for a Master's degree at City University London, and this has prepared me for my current role with MISC Kuala Lumpur. I am now responsible for developing, establishing, maintaining and improving QAHSSE Management System in order to ensure shipboard and shore management safe operations of the company's fleet in terms of health, safety and environment.

When I first started many voiced their concerns about women working on board a vessel and spending extended periods of time at sea. What I found instead is a thriving population of women within this field. I did not let gender dictate any limitations to my career and instead embraced opportunities to learn and worked as hard and as smart as any of my colleagues. I am proud to be appointed the first female Superintendent at MISC Kuala Lumpur.



From left to right: class mates— Qing Yu from China;  
Rattavut Chimtawan from Thailand; Suvani Mokhtar from  
Malaysia, and Joohee Lee (known as Julie) from South  
Korea.

A key factor in moving forward in my career is the strong network of support both at home and afar. In some ways the Maritime sector is small. People know who are a safe pair of hands, who works hard, and has ideas. I began to understand the importance of networks while studying at City University London. I made invaluable international connections with my fellow classmates, and lecturers from different maritime sectors, and benefited from related activities like the guest lecture series. In the future, I plan to excel in my field and climb the corporate ladder. I am currently in the midst of applying to IMarEST for the title of Chartered Marine Technologist (CMarTech). Ultimately, my aspiration is to own and manage my very own Ship Management Company.

Alumni invited profile. Get in touch if you have a story.

### Research and Programmes in Maritime Studies

City University London  
Postgraduate Office  
School of Mathematics, Computer Science & Engineering  
Northampton Square  
London  
EC1V 0HB

Phone: +44 (0)2070405060

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