



ICMET OMAN 2019

المؤتمر الدولي للهندسة
البحرية و التكنولوجيا
International Conference on
Marine Engineering and Technology



INNOVATIVE SOLUTIONS FOR FUTURE NEEDS

5 – 7 November 2019
Military Technological College
Muscat, Oman

KEY THEMES

- ▀ Marine Resources and Security
- ▀ Shipbuilding Technology
- ▀ Sustainability and Green Shipping
- ▀ Safe Automation and Remote Manning
- ▀ Support and Infrastructure
- ▀ Ship Design and Propulsion
- ▀ Naval Engineering

WELCOME FROM THE CHAIRMAN

On behalf of Military Technological College (MTC), it is my pleasure to welcome you to the Sultanate of Oman (Muscat) for the first International Conference on Marine Engineering and Technology (ICMET Oman 2019), which is held in collaboration with the Institute of Marine Engineering, Science and Technology (IMarEST). ICMET provides a unique opportunity for academic staff and marine engineers across all sectors and domains to meet in a professional, scientific forum and explore the latest innovative thoughts in the field. An international audience of researchers and designers from academia alongside developers, technical providers and policy-makers from public and private sector organisations will discuss and challenge world-leading technical papers. Keynote speeches from exceptional members of the marine community will enlighten the audience with ideas related to the progress of marine technology towards a demanding future environment.

The theme for ICMET Oman 2019 is Innovative Solutions for Future Needs and reflects the challenge for marine academia and the industry worldwide to come up with efficient, cost-effective and environmentally friendly answers and products that will arm the marine community against these forthcoming challenges. Different areas such as marine security and resources; sustainability and green shipping; ship-design and propulsion; safe automation; support and infrastructure; professional development; safety and regulations and naval engineering (underwater technology and weapon systems) will be explored.

Furthermore, I am thrilled to welcome you to the hospitable Muscat, the capital city of the Sultanate of Oman, a Middle East maritime trading centre with a rich maritime history. Oman is the ideal location to host an international maritime event owing to its unique combination of historical maritime tradition and the latest technological growth and development. Military Technological College, being a youngster in the academic field, aspires to become a leader in the region, promoting research towards innovative technology solutions.

I welcome you to Oman and I hope you enjoy the Omani hospitality.

Engineer Abdullah Said Najman Al Balushi

Chair of ICMET Oman 2019, MIMarEST, Head of Marine Engineering Department,
Military Technological College, Oman



WELCOME FROM THE PRINCIPAL SPONSOR

The Royal Navy of Oman has the great privilege and honour to welcome you to the Sultanate of Oman (Muscat) for the first International Conference on Marine Engineering and Technology (ICMET Oman 2019). It is our sincere intention to achieve the desired conference objectives, through the presentation of challenging papers that will lead to fruitful discussions, enriched by the presence of the marine technical experts, engineers, researchers, academics and scholars.

It is Royal Navy of Oman's policy to continuously provide significant priority to such events and activities of a scientific nature, at both local and international format. RNO actively participates and frequently organises international and local conferences, symposiums and workshops in various fields such as health, education and technology, among others. This, in turn, compels the Royal Navy of Oman to bear full responsibility and provide opportunities in order to enable its personnel to develop and display their talents and skills.

It is important to note that the Royal Navy of Oman maintains a prominent role within the local society, contributing in various ways, along with its operational mission to ensure security and stability in the region and protect national Omani interests in the local maritime environment. RNO's social responsibility is evident and manifested by active participation in similar events and activities, as well as through its support towards other national institutions in compliance with Royal Directives and Principles of his Majesty, the Supreme Commander of the Sultan Armed Forces, that urge all the State's authorities and institutions to exert collective efforts and work together in harmony to achieve the desired social objectives.





24 hours of Working
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PROGRAMME OVERVIEW

With over 30 technical papers received from 20 organisations across 10 countries, ICMET Oman 2019 looks set to be a truly outstanding showcase for the cutting edge of marine engineering and technology. The conference will include a selection of eminent keynote speakers and a rigorous academic programme, including sessions around ship design and propulsion, marine professional development, safe automation and remote manning, naval engineering, support and infrastructure, marine resources and security and sustainability and green shipping.

CONFERENCE PROGRAMME – DAY 1 (SUBJECT TO AMENDMENT)

Tuesday 5th November 2019

| Start | End | Opening Plenary - Auditorium | |
|---------|---------|---|---|
| 7:45am | 8:30am | Registration | |
| 9:00am | 9:15am | Welcome Ceremony | |
| 9:15am | 9:30am | KEYNOTE 1: The Role of the Naval Fleet in the Omani History Dr Mohammed S. Al-Muqadam , Board Member of Oman Historical Association, SQU | |
| 9:30am | 9:45am | KEYNOTE 2: Solving the World's Marine Challenges with Marine Engineering, Science and Technology Dr Andrew Tyler , President, IMarEST | |
| 9:45am | 10:00am | Close of Welcome Ceremony | |
| 10:00am | 10:30am | COFFEE | |
| 10:30am | 10:55am | KEYNOTE 3: Future Developments of Marine Propulsion – Transition to Alternative Fuel Mr Alexander Nijsen , Head Four-Stroke Marine Sales at MAN Energy Solutions | |
| 10:55am | 11:00am | Move to Technical Streams | |
| | | Technical Stream 1 – Auditorium | Technical Stream 2 – Khasab Mess |
| | | SHIP DESIGN AND PROPULSION | SUPPORT & INFRASTRUCTURE |
| 11:00am | 11:05am | Welcome Remarks | Welcome Remarks |
| 11:05am | 11:30am | Gas Turbine Performance Enhancement for Naval Ship Propulsion using Wave Rotors Antonios Fatsis , Military Technological College, Oman | The Duqm Naval Dockyard - a naval yard for Oman David Heley , Duqm Naval Dockyard, Oman |
| 11:30am | 11:35am | Questions | Questions |
| 11:35am | 12:00pm | Numerical simulation in pipes with leakages Christina Georgantopoulou , Bahrain Polytechnic, Bahrain | Tracking device for detecting the containers lost over board Mehrdad Behforouzi , International Maritime College of Oman (IMCO), Oman |
| 12:00pm | 12:05pm | Questions | Questions |
| 12:05pm | 12:30pm | Practical Solutions for LNG Fueled Ships Serena Lim , Ascenz Solutions Pte Ltd, Singapore | iWindCr wireless sensor system for corrosion detection and monitoring of offshore wind turbine structures Sarinova Simandjuntak , University of Portsmouth, UK |
| 12:30pm | 12:35pm | Questions | Questions |

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CONFERENCE PROGRAMME – DAY 1 CONTINUED (SUBJECT TO AMENDMENT)

Tuesday 5th November 2019

| | | | |
|---------|--------|--|--|
| 12:35pm | 2:05pm | LUNCH and PRAYER | |
| 2:05pm | 2:30pm | KEYNOTE 4: A Pragmatic Approach to Regulating New Technology Mr Christian Freiherr von Oldershausen, Vice President Segment Director Navy at DNV GL | |
| 2:30pm | 2:35pm | Move to Technical Streams | |
| | | Technical Stream 1 – Auditorium | Technical Stream 2 – Khasab Mess |
| | | SAFE AUTOMATION AND REMOTE MANNING | MARINE RESOURCES AND SECURITY |
| 2:35pm | 2:40pm | Welcome Remarks | |
| 2:40pm | 3:05pm | Cyber-SHIP: Developing Next Generation Maritime Cyber Research Capabilities Kimberly Tam, University of Plymouth, UK | Dynamics of a Dual Offshore Renewable Energy System: Analysis of Wind and Tidal Turbines Talal Mohamed Al Hajeri, Khalifa University of Science and Technology and Research, United Arab Emirates |
| 3:05pm | 3:10pm | Questions | |
| 3:10pm | 3:35pm | Challenges for Developing Navies to Adopt Industry 4.0 R K Rana, Foundation for Innovation and Technology Transfer at Indian Institute of Technology, Delhi, India | Investigating the Wave Energy Capacity within the Oman Coastal and Terrestrial Waters Hamid Reza Soltani Motlagh, International Maritime College of Oman (IMCO), Oman |
| 3:35pm | 3:40pm | Questions | |
| 3:40pm | 4:05pm | New eyes in the Deep Stephen Hall, Society for Underwater Technology, UK | An overview of progress in flapping wing power generation Muhammad Arif Ashraf, Military Technological College, Oman |
| 4:05pm | 4:10pm | Questions | |
| 4:10pm | 4:35pm | Design of Autonomous Marine Vehicles Systems Needs Abstraction: An Illustrative Simulation using Hybrid Automata and Statistical Learning Amolkumar Bhojar, Savitribai Phule Pune University, India | Renewable Power Source Weather Station Abillah Said Salim, Higher College of Technology, Oman |
| 4:35pm | 4:40pm | Questions | |
| 4:40pm | | Close Day 1 | |
| 6:30pm | 8:30pm | EVENING CITY TOUR | |

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world.**



CONFERENCE PROGRAMME – DAY 2 (SUBJECT TO AMENDMENT)

Wednesday 6th November 2019

| Start | End | Opening Plenary - Auditorium | |
|---------|---------|--|---|
| 8:30am | 8:55am | KEYNOTE 5: Innovative Technologies on Next Generation Naval Vessels Captain (ret.) Hervé Boy , <i>Surface Ships Business Development and Marketing Manager in "Naval Group"</i> | |
| 8:55am | 9:00am | Move to Technical Streams | |
| | | Technical Stream 1 – Auditorium | Technical Stream 2 – Khasab Mess |
| | | SHIP DESIGN AND PROPULSION | SAFE AUTOMATION AND REMOTE MANNING |
| 9:00am | 9:05am | Welcome Remarks | |
| 9:05am | 9:30am | Experimental Study on the Effect of Marine Engine Lubricant Degradation on Tribological Performance of Cylinder Liner and Piston Rings Contact Using a Tuning Fork Technology Based Oil Sensor Mayank Anand , <i>Military Technological College, Muscat, Oman</i> | Autonomous Ship Navigation Methods: A Review Abraham Noel , <i>AMET University, India</i> |
| 9:30am | 9:35am | Questions | |
| 9:35am | 10:00am | Numerical investigation on FSI analysis of composite marine propeller using Co-Simulation technique Ashok Kumar , <i>Indian Institute of Technology Madras, India</i> | Future of Shipping Jacque Powell , <i>SeaSpec Marine Consultancy Services FZE, United Arab Emirates</i> |
| 10:00am | 10:05am | Questions | |
| 10:05am | 10:30am | Ultimate Limit State Analysis of Ship Structures Sathish Kumar Sundarraj , <i>Oman Dry Dock Company, Oman</i> | Tanker Industry is More Ready against Cyber Threats Aybars Oruc , <i>Piri Reis University, Turkey</i> |
| 10:30am | 10:35am | Questions | |
| 10:35am | 11:00am | Retrofitting LNG Fueled Vessels with Alternative Engineering Design and Reduction in Downtime Ivan CK Tam , <i>Newcastle Research and Innovation Institute, Singapore</i> | Concept Design of an Unmanned Surface Vessel for Offshore Cargo Delivery Akhil Nair , <i>Houlder Ltd., UK</i> |
| 11:00am | 11:05am | Questions | |
| 11:05am | 11:25am | COFFEE | |
| | | | Technical Stream 2 – Khasab Mess |
| | | | NAVAL ENGINEERING |
| 11:25am | 11:50am | Residual stress study for sustainable structural integrity assessment Sayed Hossain , <i>Military Technological College Oman, Oman</i> | Design of a Test Setup to Measure Magnetic Signature Reduction Djurre Wikkerink , <i>Delft University of Technology, Netherlands</i> |
| 11:50am | 11:55am | Questions | |
| 11:55am | 12:20pm | Investigation of thermal performance of a ship cabin air conditioning system-CFD study Babak Fakhim , <i>Military Technological College Oman, Oman</i> | Design and Experimental Evaluation of a Novel Type Radar Reflector for use in the Marine Environment Nikolaos Malachias , <i>Military Technological College Oman, Oman</i> |
| 12:20pm | 12:25pm | Questions | |

CONFERENCE PROGRAMME – DAY 2 CONTINUED (SUBJECT TO AMENDMENT)

Wednesday 6th November 2019

| Start | End | |
|---------|--------|--|
| 12:25pm | 1:25pm | LUNCH and PRAYER |
| 1:25pm | 1:50pm | KEYNOTE 6: From Patrol Boats to complex War Ships: The Challenges of Strategic Changes to Engineering Organizations in RNO Captain (Eng.) Awadh Al Mamari , <i>Head of Engineering Support – Royal Navy of Oman (RNO)</i> |
| 1:50pm | 1:55pm | Move to Technical Streams |
| | | Technical Stream 1 – Auditorium SHIP DESIGN AND PROPULSION |
| 1:55pm | 2:00pm | Welcome Remarks |
| 2:00pm | 2:25pm | Fluid-Structure Interaction of Hydrofoils Jason Knight , <i>University of Portsmouth, UK</i> |
| 2:25pm | 2:30pm | Questions |
| 2:30pm | 2:55pm | Modification of hull design inspired by sailfish Suraj Borah , <i>Directorate of marine engineering training, India</i> |
| 2:55pm | 3:00pm | Questions |
| 3:00pm | | Close Day 2 |
| 4:15pm | 5:00pm | Transport to Gala Dinner |
| 5:00pm | 9:00pm | GALA DINNER |

CONFERENCE PROGRAMME – DAY 3 (SUBJECT TO AMENDMENT)

Thursday 7th November 2019

| Start | End | |
|---------|---------|--|
| | | Opening Plenary - Auditorium |
| 8:30am | 8:55am | KEYNOTE 7: Green Shipping Engineer Ibrahim Al-Nadhairi , Chief Operating Officer at Oman Shipping Company (OSC) |
| 8:55am | 9:20am | KEYNOTE 8: Safe Management & Operation of Ports and Future Vision of Omani Ports Dr. Ahmed Al-Abri , Chief Executive Officer at Ports Management & Operation Company "MARAFI" |
| 9:20am | 9:25am | Move to Technical Streams |
| | | Technical Stream 1 – Auditorium SUSTAINABILITY AND GREEN SHIPPING |
| 9:25am | 9:30am | Welcome Remarks |
| 9:30am | 9:55am | Digital Initiatives, Infrastructures and Data Ecosystems in the Maritime Sector Socrates Theodossiou , Tototheo Maritime, Cyprus |
| 9:55am | 10:00am | Questions |
| 10:00am | 10:25am | Elaborating Sustainable Port services for Greener Shipping John Prousalidis , National Technical University of Athens, Greece |
| 10:25am | 10:30am | Questions |
| 10:30am | 10:50am | COFFEE |
| 10:50am | 11:15am | Ports of the Future: Bringing Emissions in Port Visits to a Minimum by Collaboration and Digital Data Sharing Andreas Chrysostomou , MarineFields Holdings Ltd, Cyprus |
| 11:15am | 11:20am | Questions |
| | | Technical Stream 1 – Auditorium MARINE PROFESSIONAL DEVELOPMENT |
| 11:20am | 11:45am | The challenges of ToMT and Performance in the OSRE and beyond: the role of 'a System of Forces' and Effectiveness of Training Ali M. S. Al-Raqadi , Oman |
| 11:45am | 11:50am | Questions |
| 11:50pm | 12:15pm | Closing Plenary - Auditorium |
| 12:15pm | | Disperse |

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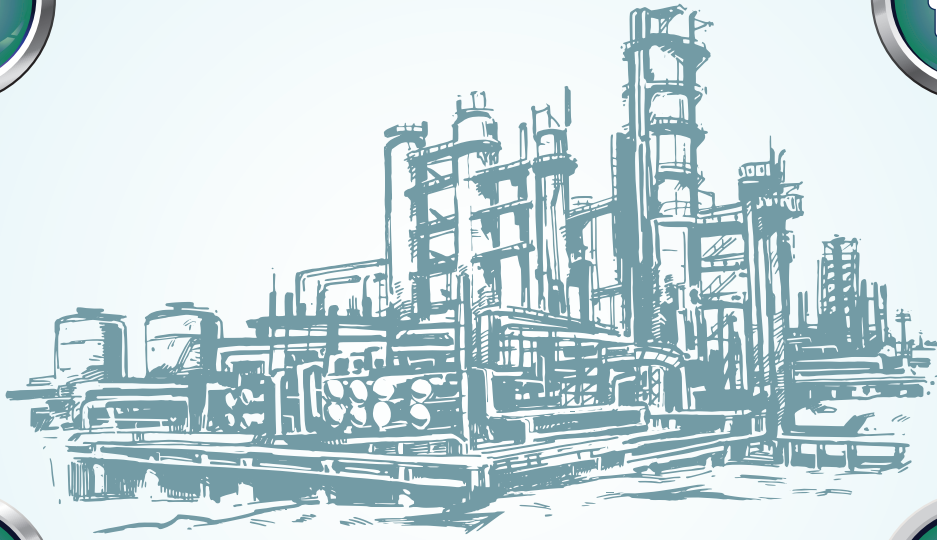
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733

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الشركة العمانية للغاز الطبيعي المسال ش.م.ع

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KEYNOTE SPEAKERS



Dr. Andrew Tyler *CBE FREng FRAeS FIMarEST RCNC MRICS*

President of Institute of Marine Engineering, Science & Technology (IMarEST)

Andrew Tyler has accumulated more than 25 years of experience in Board-level positions (chairman, CEO/MD, COO, and NED) in private (corporate and PE-backed) and public sector organisations. In 2018, he was appointed CEO of Algeco Group, the world's largest modular space company. He became President of IMarEST in March 2019.

Keynote topic: Solving the world's marine challenges with engineering, science, and technology



Mr. Christian Freiherr Von Oldershausen *Dipl. Ing.*

Vice President Segment Director Navy at DNV GL

Christian Von Oldershausen spent 12 years of his professional career in the German Navy as a Marine and Weapons Engineering Officer. Christian looks back on more than 35 years of involvement in the international maritime industry, with management and project development experience in shipping and shipbuilding companies. He became DNV GL's Naval Business Segment Director in January 2015.

Keynote topic: A pragmatic approach to regulating new technology



Dr. Ahmed Al-Abri

Chief Executive Officer at Ports Management & Operation Company "MARAFI"

Ahmed Al-Abri is a Naval Architect with extensive experience of more than 19 years in Projects and Operations management. His experience includes, work as a Naval Architect and Project Director for various engineering projects in the Royal Navy of Oman and projects director in Al Jazeera International Group (AJIG) in Oman. From July 2018, he is the Chief Executive Officer of Marafi Company of the Oman Global Logistics Group (ASYAD).

Keynote topic: Safe management & operation of ports and future vision of Omani ports



Engineer Ibrahim Al-Nadhairi, MBA

Chief Operating Officer at Oman Shipping Company (OSC)

Ibrahim Al-Nadhairi is a Marine Engineer with extensive experience in Projects and Operations management. He has worked in budget setting, major ships repairs, technical projects, inspections and incident investigation and ship building. From February 2019, he is Chief Operating Officer in Oman Shipping Company, providing strategic direction to different departments of the organization.

Keynote topic: Green shipping

KEYNOTE SPEAKERS



Dr. Mohammed S. Al-Muqadam

Board Member of Oman Historical Association

Dr. Mohammed S. Al-Muqadam is Board member of Oman Historical Association and a former assistant Professor of History at Sultan Qaboos University in Muscat, Sultanate of Oman. He served as Head of the History Department during 2009-2014. He has got deep insights about Oman and nation's history and has delivered numerous speeches in regional and international seminars and conferences related to Oman's civilization historical development.

Keynote topic: The role of the naval fleet in the Omani history



Mr. Lex Nijsen

Mr. Lex Nijsen started his career in the marine industry in 1990 as an engineer on board chemical tankers. From 1996 he worked for MAN Diesel & Turbo in the Netherlands (former MAN Rollo) in different positions. In 2006 he became Director of Sales of MDT Netherlands. In 2011 he moved to Augsburg in order to take over the position as Head of the global Sales Business of Marine Medium Speed for MAN Diesel & Turbo SE. Since 2015 he is the Head of Four- Stroke Marine Sales.

Keynote topic: Future developments of marine propulsion – transition to alternative fuel



Captain (Eng.) Awadh Al Mamari

Head of Engineering Support- Royal Navy of Oman (RNO)

Captain Awadh Al Mamari is a Naval Weapons Engineering Officer with more than 30 years' experience in RNO. He has served on board five different types of RNO vessels as Radars Section Officer, Engineering Sea Training Officer and Head of Weapons Engineering Departments. He has been involved with many RNO engineering projects and has vast project management experience having served in HQ RNO as Staff Officer-1 (Projects). He has submitted numerous studies of research related to the improvement of the standards and efficiency of work in RNO. He became Head of Engineering Support in RNO, in June 2018.

Keynote topic: From patrol boats to complex war ships – the challenges of strategic changes to engineering organizations in RNO



Captain (ret.) Hervé Boy

Surface Ships Business Development and Marketing Manager for Naval Group

Captain (ret.) Hervé Boy joined the French Naval Academy in 1983, from where he got his BSc degree. He served as Weapons Department Head on board several French Navy warships. He was appointed as a Commanding Officer at three French Navy ships, the P400 Patrol Vessel "La Rieuse", the Command and Supply Ship "Marne" and the Air Defence Destroyer "Chevalier Paul". His experience involves programme management of several naval programmes, while serving at French navy Head Quarters. He retired with the rank of Captain in 2012 and he has been Surface Ships Business Development and Marketing Manager for Naval Group since October 2012.

Keynote topic: Innovative technologies on next generation naval vessels

PLATINUM SPONSORS



Royal Navy of Oman (RNO)

The Royal Navy of Oman (RNO) is one of the Sultan Armed Forces (SAF) services. Like other services within SAF, RNO carries out its honourable mission, to ensure security and stability in the Omani maritime environment by exercising full national sovereignty over the Sultanate's waters, protecting its coasts and national economic interests, ensuring safety of navigation and contributing to the development of the State. The RNO consists of a fleet of modern vessels, fully equipped with the latest technologically advanced systems, supported by Naval Bases, Units and Training Centres & Institutions. www.mod.gov.om/en-US/RNO



Oman Aviation Group (OAG)

Established in Muscat in February 2018, Oman Aviation Group is an economic catalyst tasked with empowering the Sultanate's aviation sector and enabling the tourism and logistics sectors with the aim of stimulating economic revitalization, development and growth. Comprising core business units Oman Air, Oman Airports and Oman Aviation Services, the Group works diligently towards building an integrated aviation super-centre to lead Omani national aviation interests into the future. www.oag.om/home

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The company operates three liquefaction trains – two owned by Oman LNG LLC and one by Qalhat LNG SAOC with a nameplate capacity of 10.4 million tonnes per annum (mtpa) – at its plant in Qalhat, South Sharqiyah Governorate. Visit: www.omanlng.co.om



Oman Shipping Company (OSC)

Oman Shipping Company S.A.O.C. (OSC) was established in 2003 as the logistics pillar in the supply chain initially linking energy export hubs in the Sultanate of Oman with markets across the globe. Over the years, OSC has evolved into a well-diversified ocean-going shipping fleet equipped to handle a wide range of commodities, notably crude oil, LNG, LPG, refined petroleum fuels, chemicals, minerals and even containers. Today, OSC operates a fleet of around 49 ships of a total tonnage aggregating 8 million DWT approximately. www.omanship.com



شركة عُمان للجوف الجاف
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Oman Drydock Company

Established in September 2006, Oman Drydock Company (ODC) is wholly owned by an Oman Government holding company ASYAD. ODC has a diverse business portfolio, which covers broad revenues streams such as ship repair and conversion, industrial fabrication, naval engineering, offshore engineering and shipbuilding. Operating graving docks, ODC holds a geographical advantage of being at the Indian Ocean and in the proximity of the busiest shipping routes in the world. www.omandrydock.com



Duqm Naval Dockyard (DND)

Duqm Naval Dockyard (DND) is a Joint Venture established between Oman Drydock Company (ODC) and Babcock International Group that undertakes warship and Naval auxiliary repair work at Duqm in Oman. Incorporated as an Omani company in June 2017, DND has undertaken 22 repair contracts in the last two years, mainly with US Military Sealift Command. DND offers the international naval market an ideal maintenance and repair hub in support of operations in the Middle East and beyond. DND programme manages warship repair contracts utilising modern, well-tested logic-linked workflows and schedule management tools to enable complex repair work to be undertaken within tight and closely monitored customer contracts. Customer feedback to date cites DND as a reliable, professional and competitive team that delivers on cost, on time. www.babcockinternational.com



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- **Commodore Frank Mungo** *CEng (Hon)FIMarEST RN*, Institute of Marine Engineering, Science & Technology, **Co-Chair, U.K.**
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- **Dr. Sadhik Basha**, International Maritime College Oman, Oman
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- **Dr Antonios Fatsis**, Military Technological College, Oman
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- **Dr Jason Knight**, *BEng (Hons), PhD, FHEA, CEng (MIET)*, University of Portsmouth, U.K.
- **Commodore (Dr) R K Rana**, *Veteran, PhD (IIT-M), MSc-Marine Engg(UK), BSc-Mech Engg (DU), ME^t, CEng (UK), FIMarE (I), FIMarEST (UK), MASNE (USA)*, Foundation for Innovation and Technology Transfer, India
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- **Dr Sarinova Simandjuntak** *CEng FHEA*, University of Portsmouth, U.K.
- **Commodore David B. Smith** *MSc CEng CMarEng FIMarEST RFA*, DES- Royal Fleet Auxiliary, U.K.
- **Mr Andrew Trumble** *CEng CMarEng FIMarEST*, Bahrain LNG Terminal, Bahrain
- **Dr. Hassan Yousef**, Sultan Qaboos University, Oman



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CONFERENCE NETWORKING EVENTS

Muscat City Welcome Tour, Tuesday 5 November 2019

On Tuesday evening, you are cordially invited to a Muscat City Welcome Tour. This tour will provide the participants with an opportunity to explore the hospitable city of Muscat, the modern capital of the Sultanate of Oman. Muscat offers visitors a stunning combination of old and new. During the tour, you will have the opportunity to get off the buses and enjoy an outside view of some of the world-famous sights of Muscat, including Sultan Qaboos Grand Mosque and Royal Opera House - two architectural masterpieces - Muttrah Souq, one of the oldest Souqs in Arabia and Al Alam Palace between Al Jalali and Al Mirani twin 16th century built forts.

Conference Gala Dinner, Wednesday 6 November 2019

On Wednesday evening, the Conference Gala Dinner will offer a special opportunity for you to spend a few hours on board one of the Royal Navy of Oman (RNO) vessels. Provision of the ship is a courtesy of the Platinum Sponsor of this event. The establishment of the modern Royal Navy of Oman in the early seventies is an extension and renewal for the Omani ancient maritime history. Oman owned the largest naval and commercial fleet in the area at that time. The Royal Navy of Oman continues the historic maritime path and performs its honourable roles to ensure security and stability in the Omani maritime environment. You will have the opportunity to visit one of the modern RNO vessels, observe the professional Omani seamanship, sail the blue waters of Sea of Oman, enjoy the traditional Omani hospitality and taste delicious local creative dishes. Transportation to and from the RNO vessel will be provided.

CONFERENCE INFORMATION

Venue

The conference will be held at the campus of the Military Technological College, Al Matar Street in Muscat, the capital of Sultanate of Oman. The College is amongst the best in the field of military and applied non-military technical education and training providers and enjoys excellent facilities within which to host this cutting-edge event.



Continuing Professional Development (CPD)

All delegates will be sent a CPD certificate after the event.

Complimentary IMarEST Membership

All non-member participants will be made IMarEST Affiliate members for one calendar year, giving instant access to Institute benefits. Full details will be emailed to non-member delegates.




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Marine Engineering,
Science & Technology

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Our members are a global group of marine professionals who share knowledge and best practice, ensuring expertise remains strong in the marine sector and that we remain at the forefront of technological progress.

The IMarEST supports you with your professional development at every stage in your career.

- **Gain recognition** through professional qualifications such as Chartered status
- **Enhance your job prospects** by boosting your skillset through training, education or technical activities such as joining a Special Interest Group
- **Be better connected** by meeting and networking with like-minded professionals
- **Earn more money** – those with professional qualifications such as Chartered status will earn more over their careers

Join now: www.imarest.org/join-us

ORGANISING COMMITTEE

- **Engineer Abdullah Said Najman Al Balushi, MSc, MIMarEST**, Head of Marine Engineering Department, Military Technological College, **Conference Co-Chair**
- **Dr. Antonios Fatsis, Ph.D., MSc**, Deputy Head, Marine Engineering Department, Military Technological College
- **Commodore (ret.) Dimitrios Xifaras HN, MSc, MIET**, Senior Lecturer, Marine Engineering Department, Military Technological College, **Conference Manager**
- **David Loosley**, Chief Executive, IMarEST
- **Charlotte Lord**, Conference Communications Manager, IMarEST
- **Anastasia Finch**, Conference Project Manager, IMarEST
- **Frank Mungo**, Conference Co-Chair, IMarEST

ABOUT THE ORGANISERS

Military Technological College (MTC) was established in 2013, at the Sultanate of Oman and through its Marine, Civil, Systems and Aeronautical Engineering Departments works in the field of military and applied non-military technical education and training, delivering all Ministry of Defence technician education and training. MTC's mission is to deliver vocational trade, specialist, undergraduate and post-graduate engineering programmes in a well-equipped and high-quality learning and training environment.



The Institute of Marine Engineering, Science & Technology (IMarEST) is an international membership body and learned society that brings marine engineers, scientists and technologists together. It spans 128 countries and works to promote the scientific development of marine disciplines, providing opportunities for the exchange of ideas and upholding the status, standards and expertise of marine professionals worldwide.



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Mission Developing World-Class **Maritime Leaders**.

Vision Emerging as a **leading maritime** education, training & research facilities provider in the shipping world through continuous innovation and endeavours.

Excellence BMA is a campus for **smart young generation**.
BMA ensures **Quality Cadets'** entry into seafaring.
BMA is a **Maritime Motherland**.



Bangladesh Prime Minister Sheikh Hasina at Graduation Parade of Academy

Academy Profile

Type: Full Government Organization

Administrative Organization: Ministry of shipping

Monitoring Organization: Department of Shipping

Bachelor Degree by: Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh

Pre-Sea & Post-Sea Courses: IMO Model Courses

Website: www.macademy.gov.bd

Contact: Phone: 031-251415-6
e-mail: info@macademy.gov.bd



IMO SecGen Koji Sekimizu visited Academy

International Standing

- 2019: MOU with World Maritime University as Partner Institution
- 2018: MOU with Tolani Maritime Institute, India
- 2016: Achieved ISO 9001:2015 Quality Certificate from DNV-GL
- 2016: Commandant Sajid Hussain is a IMO (UN) Maritime Ambassador
- 2015: Recognized by Maritime & Port Authority (MPA) Singapore
- 2014: Member of Global On-Board Training Centre (GOBTC)
- 2014: MOU with World Maritime University, Sweden
- 2013: Member of International Maritime Rescue Federation (IMRF)
- 2012: Academic collaboration with Shell Marine Singapore
- 2011: Recognized by European Commission (EMSA)
- 2010: Research-attachment with Australian Maritime College, Australia
- 2010: Professional Link with IMEC, ISF, ITF, IMarEST & NI
- 2010: Member of GlobalIMET (Australia), InterManager & Marine Biz-TV



IMO SecGen Dr Kitack Lim visited Academy



Cadet Block



Seafarers' Memorial



A Female Cadet at Sea

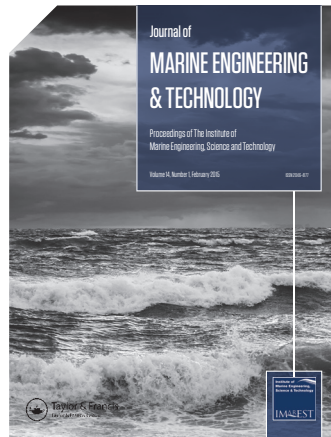
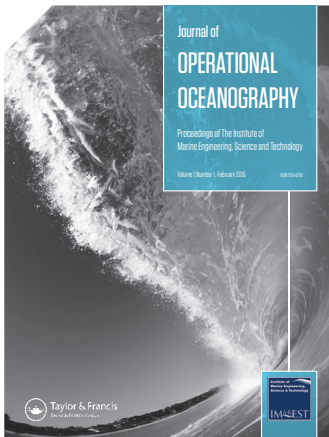


RECOGNISING AUTHORS

Accepted papers will be published as open access in the “Proceedings of the International Conference on Marine Engineering & Technology Oman”. These will be available online following the conference, with each paper assigned a Digital Object Identifier (DOI) by the Institute of Marine Engineering, Science & Technology (IMarEST) to enable lasting accessibility and citability. This will be provided at no cost to authors.

Exemplary contributors will be invited by the Technical Programme Advisory Committee (TPAC), to submit their paper to one of the IMarEST’s peer reviewed journals; the *Journal of Marine Engineering and Technology* or the *Journal of Operational Oceanography*. Please note that all submissions are subject to initial appraisal by the editor, and, if found suitable for further consideration, peer-reviewed by independent, anonymous expert referees.

Authors attending the conference are also invited to the IMarEST’s exhibition booth for more information and advice about the publishing opportunities available with the IMarEST.





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