

2ND BATCH

APPOINTMENT HOLDER CADETS

FORE TOP



MD. SHAKHAWAT HOSSEN SHAIKAT
Senior Cadet Captain
Cadet No: 02400



MD. RAFSAN FARZAD KHAN
Cadet Captain
Cadet No: 00627



TAUHEEDUL ALAM OCEAN
Cadet Captain
Cadet No: 04160



MD. ABIR
Cadet Captain Sports
Cadet No: 02696



ARMAN MIAH
Leading Cadet
Cadet No: 00703



KAZI ASHIQUR RAHMAN
Leading Cadet Maintenance
Cadet No: 01088

2ND BATCH

APPOINTMENT HOLDER CADETS

MAIN TOP



MEHRAB MAHMUD
Senior Cadet Captain
Cadet No: 02220



A.K.M SHABBIR AHMED SHOUROV
Cadet Captain
Cadet No: 00235



SHAIKH ABDULLAHEL SHUVO
Cadet Captain
Cadet No: 02995



KAZI TANVIR KABIR
Cadet Captain Dinning
Cadet No: 04396



MOJAMMEL HAQUE TAREK
Leading Cadet
Cadet No:04677



MD. RAHID ABRAR
Leading Cadet Maintenance
Cadet No:00990

2ND BATCH

APPOINTMENT HOLDER CADETS

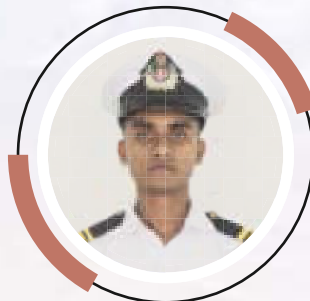
MIZZEN TOP



MD. ARAF FERDOUS APON
Senior Cadet Captain
Cadet No: 03065



JOUBYER ISLAM KHAN
Cadet Captain
Cadet No: 01591



SK. IMRAN NADIR
Cadet Captain
Cadet No: 02653



ASIFUR RAHMAN JOY
Cadet Captain Cultural
Cadet No: 04225



SAGAR HALDER
Cadet Captain Regulating
Cadet No: 02451



MD. OSMAN GANI
Leading Cadet
Cadet No: 00014



MD. ASHRAFUL HAQUE
Leading Cadet Maintenance
Cadet No: 00122

BMA RANGPUR 2ND BATCH CADETS



KAZI TANVIR KABIR
Cadet No: 04396
Engineering



MD. SHIAM
Cadet No: 04647
Engineering



A.K.M SHABBIR AHMED SHOOROV
Cadet No: 00235
Engineering



MD. ARAF FERDOUS APON
Cadet No: 03065
Engineering



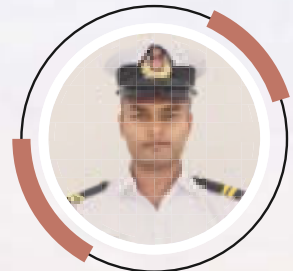
MD. SHAKHAWAT HOSSEN SHAIKAT
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Engineering



MD. SHAHIKUR RAHMAN
Cadet No: 04515
Engineering



KAZI ASHIQUR RAHMAN
Cadet No: 01088
Engineering



MD. AL-AMIN
Cadet No: 01916
Engineering



MD. FERUJ AL MAHMUD
Cadet No: 00664
Engineering



SHAHRIAR SHAISHOB
Cadet No: 04305
Engineering



SABBIR AHMED
Cadet No: 03103
Engineering



MD. POLASH AHAMMED
Cadet No: 02948
Engineering



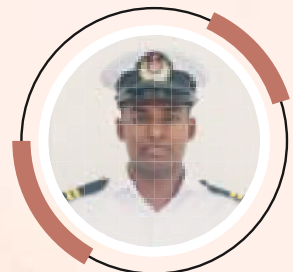
FAHAD MOHAMMAD ZOBAER
Cadet No: 01475
Engineering



RIFAT HASAN
Cadet No: 04220
Engineering



MARUF SHARKER
Cadet No: 01448
Engineering



MD. MAMUN HASAN JONI
Cadet No: 01873
Engineering

BMA RANGPUR 2ND BATCH CADETS



MD. SOJIB SARKER
Cadet No: 01023
Engineering



MOJAMMEL HAQUE TAREK
Cadet No: 04677
Engineering



MD. ASAD AL MAHIN
Cadet No: 01356
Engineering



MD. RAYHAN ARIF
Cadet No: 01927
Engineering



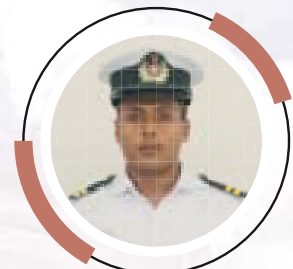
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Cadet No: 00627
Engineering



MD. ASHRAFUL HAQUE
Cadet No: 00122
Engineering



MD. ASLAM
Cadet No: 04550
Engineering



MD. SHAHADAT HOSEN SARKER
Cadet No: 02629
Engineering



MD. TAMZID HAQUE
Cadet No: 01413
Engineering



JOUBYER ISLAM KHAN
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Engineering



MD. TAMIM HOSEN
Cadet No: 01236
Engineering



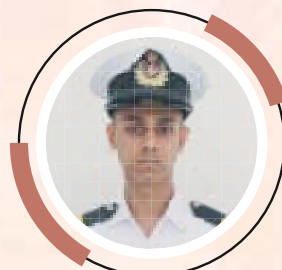
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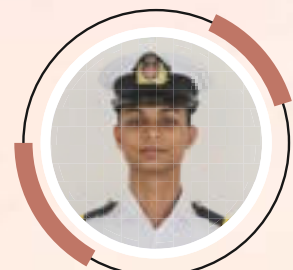
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Cadet No: 02933
Engineering



MD. HOSSAIN MAZUMDAR
Cadet No: 01113
Engineering



SHAKE ISTIAK AHAMED
Cadet No: 01507
Engineering



TAUHEEDUL ALAM OCEAN
Cadet No: 04160
Nautical

BMA RANGPUR 2ND BATCH CADETS



MD. SHAHRIUM HOSSAIN
Cadet No: 00207
Nautical



MD. SHARRUF HOSSAIN
Cadet No: 04002
Nautical



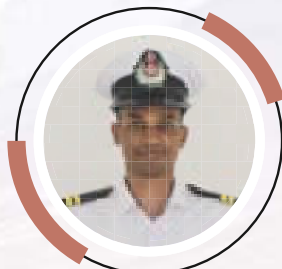
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Nautical



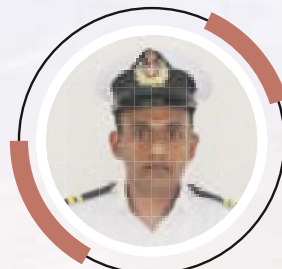
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Nautical



MD. MOSFIQUR ALAM
Cadet No: 00688
Nautical



MD. LOKMAN HOSSAIN
Cadet No: 04064
Nautical



AZMOL HOSSAIN
Cadet No: 00585
Nautical



MUSFIQUR RAHMAN
Cadet No: 02826
Nautical



MEHRAB MAHMUD
Cadet No: 02220
Nautical



SK. IMRAN NADIR
Cadet No: 02653
Nautical



ALAMIN HOSSAIN
Cadet No: 00862
Nautical



A. S. M IQBAL
Cadet No: 02920
Nautical



MD. AHASAN HABIB
Cadet No: 04705
Nautical



TANZIR AHMMED
Cadet No: 03546
Nautical



MD. MARUF ADNAN
Cadet No: 01197
Nautical



MD. OSMAN GANI
Cadet No: 00014
Nautical

BMA RANGPUR 2ND BATCH CADETS



MD. NAYMUR RAHMAN
Cadet No: 03550
Nautical



MD. ASADUJJAMAN TAMIM
Cadet No: 00726
Nautical



YEASIN SABBIR
Cadet No: 00237
Nautical



MD. MARGUB MORSHED
Cadet No: 01633
Nautical



ARMAN MIAH
Cadet No: 00703
Nautical



HUMAYUN KABIR TALOKDER
Cadet No: 01385
Nautical



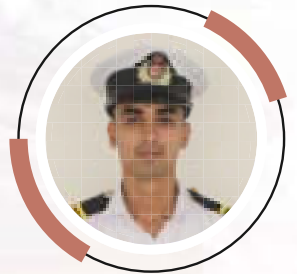
MD. IKRAMUL HASAN
Cadet No: 02465
Nautical



SHAIKH ABULLAHEL SHUVO
Cadet No: 02995
Nautical



ZARIF AREFIN
Cadet No: 02882
Nautical



MD. RUBAYEL HOSSAIN SAGOR
Cadet No: 03258
Nautical



SAGAR HALDER
Cadet No: 02451
Nautical



MD. SHARIA AHMED SUJAN
Cadet No: 03998
Nautical



MD. ABIR
Cadet No: 02696
Nautical



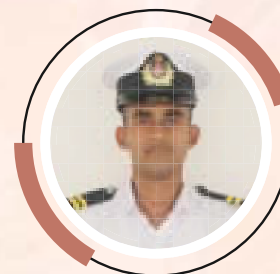
LEMON KUMAR
Cadet No: 00751
Nautical



MD. RAHID ABRAR
Cadet No: 00990
Nautical



ILEYAS HOSSAIN
Cadet No: 00738
Nautical



MD. SORIFUL ISLAM
Cadet No: 00800
Nautical

VIP/DIGNITARY VISITS AND INSPECTION DIARY

03.12.2022

Capt. Wu Wei

General Manager, Seacon Crew Manning Center Seacon Ships Management Co Ltd.

03.12.2022

Capt. Shamsul Alam Khan

Chairman & CEO, Marine Hive Ltd.

16.12.2022

Md Fazlar Rahman

Freedom Fighter, Pirganj, Rangpur.

16.12.2022

Md Nurul Islam

Freedom Fighter, Pirganj, Rangpur.

22.03.2023

Capt. S M Sazzdeen

Managing Director Gemini Maritime Agency Bangladesh Ltd.

06.04.2023

Liu Yong

Qingdao, LianYungun Road No 66 Shanday China.

06.04.2023

Omar S Arefeen

Managing Director Marine Hive Ltd.

29.04.2023

Md. Habibur Rahman

Divisional Commissioner, Rangpur.

01.06.2023

Cdre Kutubuddin (Retd)

Director, IBBBS, BSMRMU.

01.06.2023

Capt. Kazi Ali Imam

Professor & Head of the Department Port & Shipping Management, BSMRMU.

01.06.2023

Md. Nurul Islam, PhD (Addl.Sec.Retd)

Procurement Specialist BHTPA, NCSL Team Bangladesh Hi-Tech Park Authority, Dhaka.

01.06.2023

Capt. Zafor Ahmed

Principal, IMTA.

15.06.2023

Capt. Sayeed Mahmud Hassan

(S), NUP, psc, BN, BSMRMU.

16.06.2023

Dr. Abdur Rahim

Joint Secretary Finance Division, Ministry of Finance.

19.10.2023

Rear Admiral Mohammad Musa

OSP, NPP, rcds, afwc, psc, PhD Vice-Chancellor, BSMRMU.

16.12.2023

Md. Nazrul Islam Chowdhury

Freedom Fighter, Pirganj, Rangpur.





MARINERS AND SONAR BANGLA

Ch.Engr. Md Mehfuz ul shahid

Prime Minister Sheikh Hasina asserted that the Bangladesh of 2041 will be a smart Bangladesh where each person will have technological knowledge and the country will not lag behind in the world arena.

'**MARINER**' a name of challenges, in thousands of dangerous situations mariners have to be alerted all the time to face any adverse situation at every moment. A slight carelessness, inattention or mistake by any responsible officer can lead to the simple burial of many lives, ships and goods worth millions of dollars.

Especially, Bangladeshi Mariners set sail not for adventure but to secure their daily bread, and to lead a lovely social and family life, day after day, they float over the unknown path in the oceans taking life in hand leaving their beloved families and friends behind. Every time before joining the ship, a mariner has to say a final "Goodbye"

to his family, invoking the simple burial at sea.

The most disheartening aspect is the lack of awareness among the general public about the hardships mariners face, risking their lives to ensure the safe and secure transportation of cargo across the globe. It is not as simple as sailing a boat or carrying goods from one place to another.

For the safety of the ship it is necessary to calculate its stability, and also to calculate its carrying capacity, hull girder stress according to the design of the ship. If there is a slight mistake in the calculation, a simple death is

inevitable. This requires a lot of education and training to learn properly.

Then proper navigation, proper route, distance, fuel cost, proper maintenance of the machineries etc. have to be considered. There are many things to consider like proper route planning, proper rules of sailing, international rules & regulations as per safety, security, standard etc., which have to be learned through study.

According to the Sea area, Mariners get a rough idea of what kind of weather a mariner will get on his journey from the relevant route selection charts, previous cyclone, ice, dense fog, wind speed, distance and from here select the route and see the details in the relevant book and draw the correct route on the navigation chart.

As per the schedule voyage taking bunker (fuel, lubes, chemicals) stores, spare parts and maintaining the machineries at all times is a prime importance for smooth running of the ship.

In this way mariners can complete only one voyage.

That is, as long as a mariner remains in his profession he must remain an apprentice or student. He needs to go training and re-trainings throughout his whole life.

With the constant risk of death and huge responsibilities on their shoulders, mariners can't resist the temptation to become social creatures when they get a little time or opportunity. A barbeque party is organized on board. Challenging energy is rekindled through various entertainments.

The future of marine professionals in Bangladesh seems promising for several reasons:

With a long coastline and abundant natural resources in its maritime domain, Bangladesh has recognized the importance of training a skilled workforce in the maritime sector.

Firstly, the demand for maritime professionals is expected to increase globally due to the expansion of maritime industries, including shipping, logistics, offshore oil and gas, and marine tourism. Bangladesh, with its strategic location in South Asia, can leverage this demand by producing well-trained and competent maritime professionals.

Secondly, the Bangladesh government has taken substantial initiatives to promote maritime education and training. One such initiative is the establishment of maritime universities (BSMRMU) and marine academies, offering specialized programs in maritime studies. These institutions provide comprehensive training in areas such as navigation, marine engineering, port management, maritime law, and maritime safety and security with all the latest technical education tools such as Simulators, Demonstration hall for Nautical & Engineering branch, frequent study tours on-board ships (Ocean going) at our Sea ports etc.

Safety of navigation services provided by authorities is becoming more digital and complex in their nature. New skills are needed both to consume and to provide such services, which may include highly automated and intelligent aids to navigation and vessel traffic services.

Furthermore, Bangladesh is a signatory to the International Maritime Organization (IMO) conventions and actively participates in implementing international standards and regulations related to maritime safety, security, and environmental protection. This commitment enhances the career prospects of marine professionals from Bangladesh, as they are trained in accordance with globally recognized standards (IMO).

Moreover, the growth of the Blue Economy in Bangladesh presents significant opportunities for marine professionals. With the development of port infrastructure, shipbuilding and repair facilities, and offshore activities, there is a growing need for skilled personnel in various maritime sectors. Professionals with expertise in maritime engineering, naval architecture, marine resource management, and maritime logistics can find great career prospects in these emerging fields.

To ensure a successful future for marine professionals in Bangladesh, continuous efforts are required to strengthen the quality of maritime education and training. Collaboration between educational institutions, industry stakeholders, and regulatory bodies is crucial to align the curriculum with industry needs and provide practical training opportunities. Additionally, promoting research and innovation in the maritime sector can contribute to advancements and create new opportunities for marine professionals.

People in the society only researching with the outer decoration of the Bangladesh Marine “Building” but have discarded the plan to lay the foundation stone of this building properly. Although, the current government has set up Maritime University, academies and many institutions with modern technological facilities to keep up the Bangladeshi mariners in tune with globalization, but due to their improper management, all the written plans of modern maritime education and training (MET) is in vain. There are proper rules of conduct but proper roots have not been established to implement them properly. For example; the roots of the palm tree should be according to the length of the palm trees, otherwise the tall palm tree will not be able to maintain its balance against any inclement situation.

In Bangladesh the way IT sector developed from the root level, Marine education sector also need to focus on the root level for its future development.

Maritime education is a specialized branch of education which combines both theoretical and practical of related subjects in an integrated way. Need to include the followings in our general education sector:

- It should contain the basics of Oceans and its resources for the primary school level.
- Importance of the marine resources at junior school level.
- The curriculum at Secondary School level should be focused on some practical aspects of marine resources and utilization.
- The course should be kept as an elective subject at Higher Secondary to be chosen by the student who wants to achieve higher and in-depth study in this area.

In the past Marine academy entrance exam was one of the toughest in the country and for that this meritorious people have established our good name in the world arena in this sector. But in the recent years new intakes are drastically less meritorious which becomes a challenge to the quality of this profession because of their poor ability to receive the hardship of the training (MET).

Why the meritorious students are not coming in this field?

Looking for the root cause behind the scene it is the failure of attracting the new generation towards this sector. Let's focus with a slight and narrow bandwidth towards the mariner's practical life; as long as the government does not nationalize the marine profession with gradation equivalent to the other nationalized professions and provides job assurances, there is no possibility of changing the existing uncertain conditions of marine profession of this country. With the developing pace of the standard of MET, this profession should be nationalized with all the regular facilities as in the other professions. An especial cadre service like the other profession can be introduced to handle this sector more efficiently. “The Right man should be at the right place”.

The present so called modern maritime industry of Bangladesh should be given the opportunity to stand on its own foot. Otherwise, the dominance and dependence policy will gradually make the Mariners inactive and crippled. Only then the common people will consider the marine profession as a reliable institution and the next generation will tune their neuron over the maritime band as their aim in life.

The COVID-19 pandemic has highlighted the indispensable role that the maritime industry plays in the global economy. Seafarers are at the heart of shipping and are the critical element in operating

today's modern and technologically sophisticated ships safely and efficiently.

The maritime sector can undoubtedly play an important role in building a prosperous Bangladesh. Maritime education in Bangladesh has witnessed significant growth and development over the years. Therefore, the importance of promoting maritime education is also very important for Bangladesh.

In conclusion, the future of marine professionals in Bangladesh appears promising with the increasing demand for skilled workforce in the maritime sector globally. With the government's initiatives, commitment to international standards, and the growth of the Blue Economy, there are ample opportunities for individuals pursuing maritime education and training in Bangladesh.

Ch. Engr. Md. Mehfuz ul shahid

Engineering Instructor (VL) (BMAR)

Sailed as a Chief Engineer in various vessels of Pacific International Lines PTE-(PIL), Singapore

Certificate of Competency -COC Class-1 (Motor) from MPA, Singapore

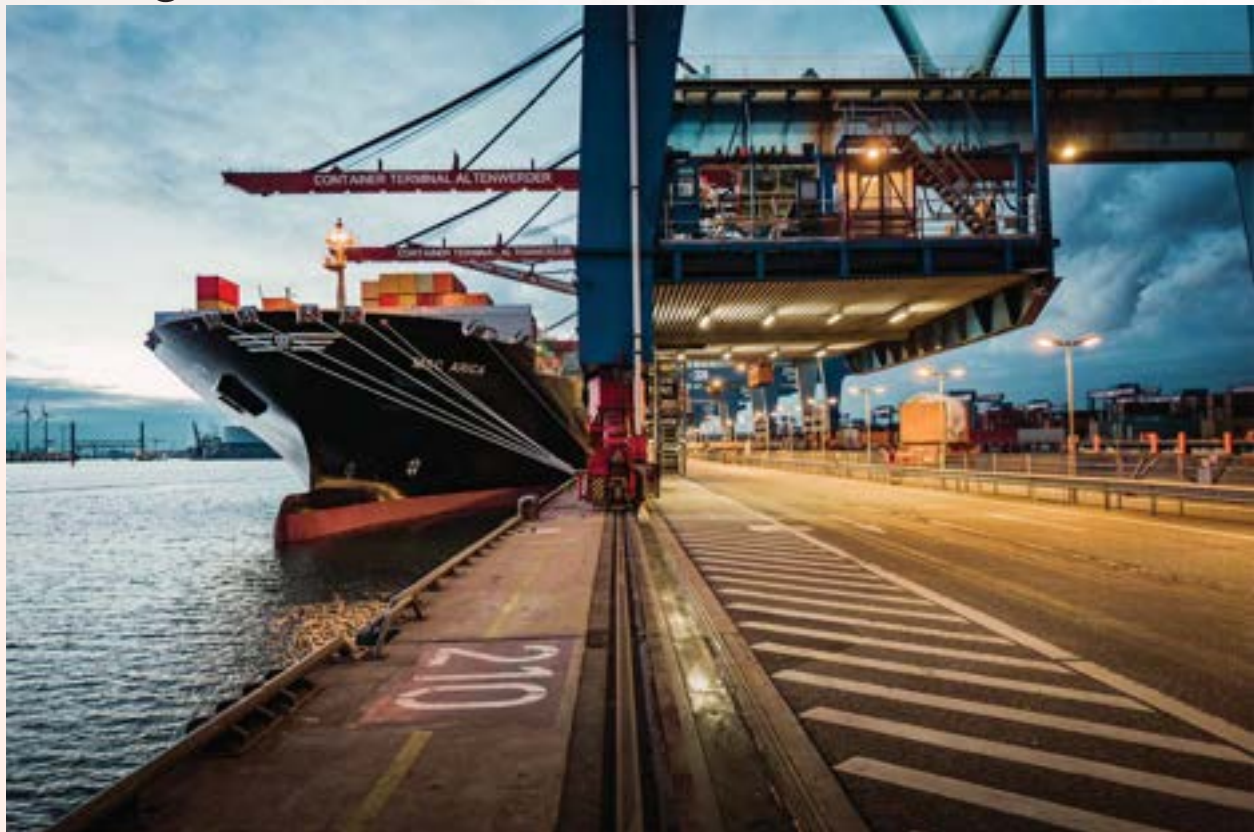
Advance Diploma in Marine Engineering (A.M.R.) from Singapore.

MSc in Environmental Science

B.Sc in Marine Engineering

29th Batch of Bangladesh Marine Academy, Chattogram.

Let the Mariners Lead the Economy of Bangladesh.



MORAL EDUCATION YARDSTICK OF HAPPINESS

Lt Cdr G.M Moshiur Rahman, (Retd)

Introduction:

In the complex tapestry of human existence, moral education plays a pivotal role in shaping individuals and societies. While academic prowess and technical skills are undoubtedly crucial, the requirement of moral education in daily life cannot be overstated. This essay delves into the significance of instilling moral values in individuals, emphasizing the positive impact it has on personal development, interpersonal relationships, and the overall well-being of society.

Moral education amplifies:

1. Personal Development:

Moral education serves as the compass guiding individuals on their journey of personal development. It cultivates virtues such as integrity, responsibility, and empathy, fostering a sense of self-awareness and ethical decision-making. Individuals equipped with a strong moral foundation are better prepared to navigate the complexities of life, make principled choices, and demonstrate resilience in the face of challenges.

2. Interpersonal Relationships:

The fabric of society is woven with the threads of human connections. Moral education enhances interpersonal relationships by promoting values like respect, kindness, and tolerance. When individuals understand and embrace these values, they contribute to a harmonious social environment. Respectful communication, empathy, and cooperation become the cornerstones of healthy relationships, whether in family, work, or community settings.

3. Social Harmony and Cooperation:

In the larger societal context, moral education is indispensable for fostering social harmony and cooperation. A morally conscious citizenry is more likely to engage in collaborative efforts for the greater good. Shared ethical values create a cohesive foundation upon which communities can build trust, understanding, and solidarity. This, in turn, contributes to the overall stability and progress of society.

4. Ethical Decision-Making:

Life is replete with choices, and ethical decision-making is a skill honed through moral education. The ability to discern right from wrong, and to act in accordance with one's moral compass, is crucial for maintaining personal integrity and societal order. By instilling ethical principles, moral education equips individuals with the tools to navigate the moral dilemmas inherent in daily life.

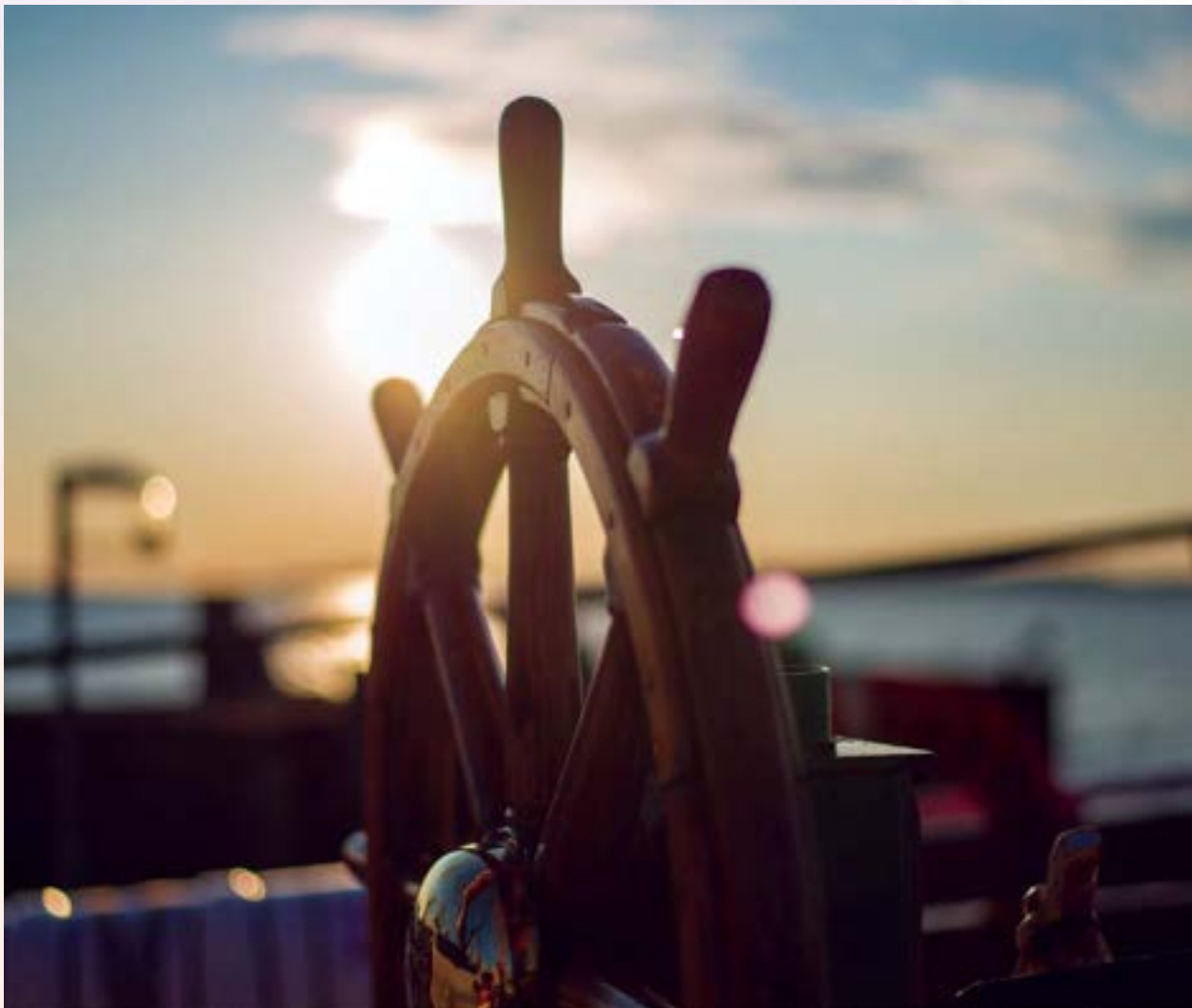
5. Crisis Mitigation:

During times of crisis or uncertainty, individuals with a strong moral foundation are more likely to respond with resilience and altruism. Moral education prepares individuals to prioritize the welfare of others, fostering a sense of community and collective responsibility. This becomes particularly evident in the face of challenges such as natural disasters, pandemics, or social upheavals.

Conclusion:

In conclusion, the requirement of moral education in daily life is not a mere abstraction but a cornerstone of individual and societal well-being. As we navigate the complexities of the modern world, the cultivation of moral values becomes increasingly essential. Through personal development, enhanced interpersonal relationships, social harmony, ethical decision-making, and crisis mitigation, moral education proves itself to be an indispensable aspect of a holistic and flourishing society. It is a beacon that illuminates the path towards a better, more compassionate world.

Lt Cdr G M Moshiur Rahman, (Retd) joined Bangladesh Marine Academy, Rangpur on 01 December 2021 as a visiting lecturer. He completed his B.Sc (Hons) and M.Sc (Physics) from Chittagong University. He served as a commissioned service officer in Bangladesh Navy in Education Branch for eighteen years. Presently he is discharging instructional duties in addition of Chief Education Officer.



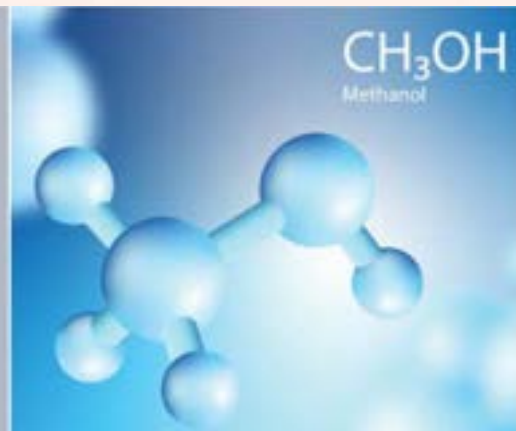
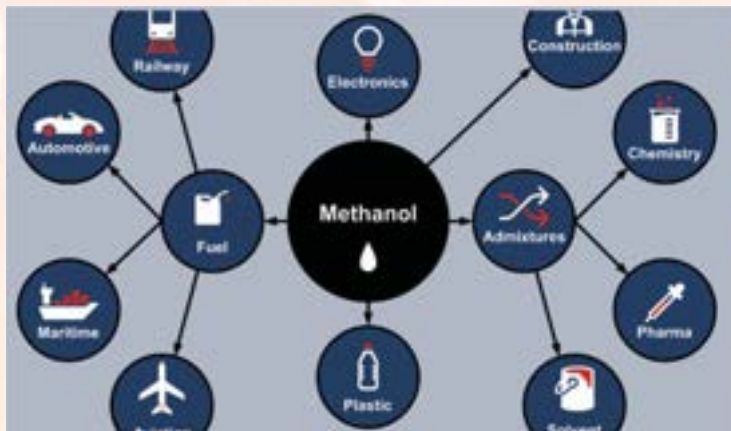


METHANOL

MAKING THE FUTURE IN SHIPPING

Ch.Engr. Mohammad Rakibul Islam

Global shipping has entered in a new arena of engine fuel. All of this is happening against the awareness of global warming and stringent emission rules and regulations. The new inclusion in shipping is an alternative shipping fuel – **Methanol (MeOH)**.



Necessity of replacing conventional fossil fuel:

According to the third IMO GHG study, shipping is responsible for at least 2.5% of global greenhouse gases (GHG), amounting to 940 million tons of CO₂ per year. At the same time, the UN Framework Convention on Climate Change predicts that the planet is on a pathway to 2.7 degrees of heating by the end of this century, which will result in rising sea levels and flooded areas, more deserts and in general more uninhabitable space. On that basis more sustainable fuels from biogenic or synthetic sources – such as blue and green variants of methanol – will be able to support this sustainable transition in shipping.

1. Characteristics of Methanol:

Known as CH₃OH and MeOH, occurs naturally in fruits, vegetables, fermented foods and beverages, the atmosphere and even in space. It is one of the four critical basic chemicals (alongside ethylene, propylene, and ammonia) and is used to produce all other chemical products such as formaldehyde, acetic acid and plastics. MeOH is used for gasoline blending (it has been used as an oxygenated anti-knock fuel additive and octane booster) and for the production of biodiesel and DME (dimethyl ether).

Methanol is a colorless water-soluble liquid with a mild alcoholic odor, with the highest hydrogen-to-carbon ratio of any liquid fuel at regular ambient conditions. Hence it can be a key energy carrier and used as an alternative shipping fuel. It is a low-viscosity fuel (like ammonia), i.e. (a) MeOH has a low calorific value (e.g. 40% of diesel), meaning that more fuel is needed for the same power output and (b) MeOH has poor ignitability, meaning that diesel pilot fuel is required for stable engine operation.

It can be used both in a diesel and Otto combustion cycle and its efficiency is similar to that of current dual fuel (DF) engines. Since methanol can be stored at room temperature and ambient pressure with an indefinite shelf life due to its stability, it comes very close to a drop-in fuel that is compatible with existing infrastructure. However, there are downsides, e.g. its toxicity and the resultant increasingly complex safety systems, as well as its corrosive behavior.

Boiling (freezing) point	65 °C (-97.6 °C)
Octane number	110
Calorific value	19.9 MJ/kg (compared to 50 MJ/kg for CH ₄ and 120 MJ/kg for H ₂)
Ignition temperature	470 °C (auto)
Density	791 kg per cubic meter (at 20 °C)

Benefits:

- Liquid state in ambient conditions, i.e. close to a drop-in fuel to be used in existing infrastructure.
- Lower local emissions (lower GHG on well-to-wake basis when green MeOH is used).
- Easy to handle, stable with indefinite shelf life.
- Mature production processes (industrial scale).
- Advanced bunkering infrastructure.
- Regulatory acceptance under IGF Code (IMO interim guidelines as of Nov 2020).
- Water-soluble, readily biodegradable.
- Molecular structure (nearly soot-free combustion).
- High octane number (RON 109, high efficiency).
- High flame velocity (less knocking behavior).
- Low flame temperature (less NOX during combustion).

Challenges:

- Carbon footprint, requires synthetic production pathway, lack of green supply and CO₂, high fuel cost.

- Competition for renewable feedstock and with other sectors as outlets.
- Toxic, can be lethal if ingested.
- Highly flammable (burns with a non-luminescent flame).
- Safety system more complex than conventional fuels.
- Lower energy content/volumetric caloric value (2.25 times the mass needed).
- Low viscosity (injection system design, leakage, lubrication).
- Corrosive behavior (leakage, sealing, etc)
- Less ignitable (ignition delay, explosive mixture formation, etc)
- Can absorb moisture from the atmosphere

2. Methanol as a fuel (supply and demand, bunkering and cost)

Methanol production at this moment roughly at 100 million tons per year (mtpa), the actual capacity being 50% higher according to the Methanol Institute. Only 0.2% (200,000 tons) is being produced from somewhat sustainable sources, i.e. the ramp-up of green, blue, and hybrid methanol production pathways is still in its infancy – like the production pathways of its main



competitors methane, ammonia, and hydrogen. Capacity is expected to grow to potentially 500 mtpa by 2050 – depending on many other competing factors and with all the uncertainty that is involved.

One example though is in Denmark, where a sustainable fuel project aims to achieve an electrolyzer capacity of 250 MW by 2027 and 1.3 GW by 2030 respectively. Fuel availability and bunkering capabilities play a decisive role when considering the use of alternative marine fuels. As a new shipping fuel—mainly tankers burning their own cargo – the bunker supply chain naturally still needs to be developed.

Current public studies and assumptions, e.g. from IRENA place production costs for methanol at 100–250 USD/ton (fossil), 320–770 USD/ton (bio) and 1,200–2,400 USD/ ton (synthetic, estimated to decrease to 250–630 USD/ton by 2050).

3. Methanol & Shipping Regulation:

The IMO, as the global governing body, has seen some recent moves toward stricter regulation and policies which will have an impact on costs and therefore choice and supply/demand balance of shipping fuels. Shipping is increasingly expected to play its part in meeting the Paris Climate Accord Targets as the recent COP26 discussions have shown, e.g. in the Clydebank-Declaration where more than 20 nations vowed to develop zero emission shipping routes. The industry itself has suggested setting up R&D funds to green the maritime operations with a surcharge on any ton of fuel sold, a decision that has been postponed by MEPC77.

Regionally, the European Union has pushed ahead with its Fit for 55 regulatory proposals, which includes plans for an emission trading system for shipping as well as the Fuel EU Maritime legis-

lation that aims to promote fuel demand in shipping and define fuel pathways based on the GHG intensity per fuel being used. Similar regulatory activity can be observed in China and the United States.

4. Storage of Methanol:

From a storage perspective, methanol is easy to handle compared to other future fuels discussed on the market. This is because there is no requirement for a cryogenic tank system or a pressure requirement to store methanol in a liquid phase. This allows methanol to be stored in almost any tank shape. The volumetric energy density of methanol is lower than diesel fuel by a factor of around 2.5. Therefore, to get the same amount of volumetric energy as with diesel the amount of methanol stored on a vessel has to be increased by 2.5 times or if an existing tank is reused, the operation range will be halved. From a safety point of view the tanks itself as well as the pipes from the tank to the engine have to be double-walled to ensure no leakages of methanol. Boil-off gas (BOG) management, a standard practice for LNG installations is not required for methanol.

Summary:

Methanol is gaining attention as a potential alternative fuel for shipping. It can be produced from various feedstocks, including natural gas and biomass. Methanol has lower sulfur emissions compared to traditional marine fuels and can be used in existing infrastructure with some modifications. Several shipping companies are exploring methanol as a cleaner fuel option to meet environmental regulations and reduce carbon emissions in the maritime industry. However, challenges such as infrastructure development and cost-effectiveness still need to be addressed for widespread adoption.

Methanol's popularity is growing as a clean-burning, low-carbon fuel and methanol-fueled engines are already in use today. However, the fuel is still conventionally produced. To advance the maritime energy transition, the gradual development of climate-neutral methanol production from renewable green hydrogen and captured carbon must progress.

Glossary:

DME: Di Methyl Ether

DF: Dual Fuel

GHG: Green House Gases

IMO: International Maritime Organization

IGF Code: International Code of Safety for Ship Using Gases or Other Low-flashpoint Fuels

IRENA: International Renewable Energy Agency

UN: United Nations

Reference: MAN Energy Solutions

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MARITIME CULTURAL AWARENESS

Capt. Md. Nazmus Shakir

Seafarers come from a diverse range of cultures; at any time, there may be more than four different cultures working on one ship! Therefore, it is no surprise that a lack of cultural awareness has been a factor in accidents, environmental damage and can negatively impact the wellbeing of seafarers on board.

An absence of multicultural awareness and cross-cultural understanding has been no secret in the shipping industry, but only recently the issue has been regarded as a crucial concern in day to day operations.

Effective communication is essential to ensure work is performed safely and efficiently, especially in such a dangerous environment. Without awareness of cultural differences, effective communication is almost impossible.



Cultural awareness is about recognising and understanding that everyone comes from different backgrounds, which have shaped our values and how we see the world. What is considered to be normal or acceptable behaviour to one culture, might be completely different to another.

It is important to develop seafarer cultural understanding to avoid these risks, improve operations and encourage a positive working environment for everyone involved.

SO, WHAT IS CULTURE?

When we think of culture, most likely the first thought is race or ethnicity, but culture goes far beyond those identity markers.

Every one of us has our own cultural identity and racial heritage no matter where we are from in the world.

Culture is made up of belief systems and value orientations that influence the lens we view the world through and something that we have been taught by other human beings; elders, who have passed it down from generation to generation.

Culture is dynamic and complex, the development of cultural identity is an ongoing process. For



example, throughout a lifetime we are exposed to many different belief systems and may decide to adopt or modify new and current outlooks and values that weren't a part of our original culture.

For example, we can acquire a new culture by moving to a new region, by a change in our economic status, or by becoming disabled. When we think of culture this broadly, we realise we all belong to many cultures at once.

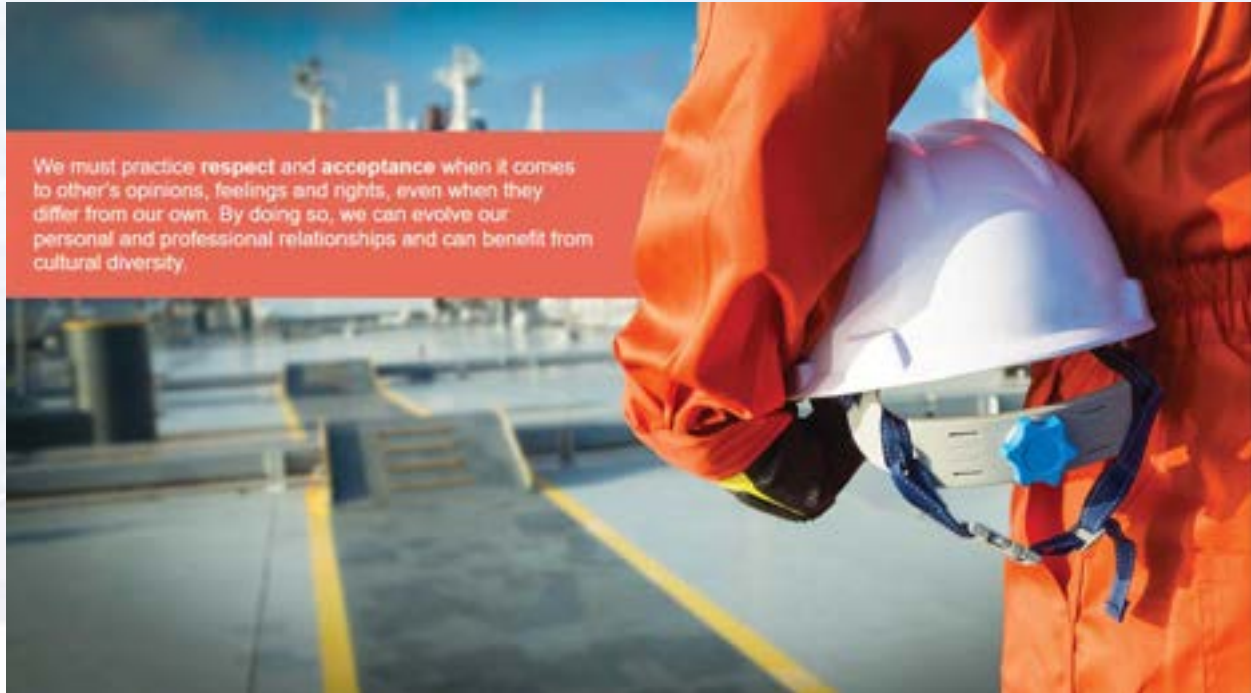
We must practice respect and acceptance when it comes to other's opinions, feelings and rights, even when they differ from our own. By doing so, we can evolve our personal and professional relationships and can benefit from cultural diversity.

WHAT ABOUT ETHNICITY?

Ethnicity is defined as "The social group that a person belongs to and either identifies or is identified with by others, as a result of a mix of cultural and other factors, including language, diet, religion, ancestry and physical features traditionally associated with race."

Those who have the same ethnicity usually share:

- Language or dialect
- Religion or customs
- Physical characteristics such as skin colour, and
- Environmental characteristics, for example living in the same area or sharing the same place of origin.



We must practice **respect and acceptance** when it comes to other's opinions, feelings and rights, even when they differ from our own. By doing so, we can evolve our personal and professional relationships and can benefit from cultural diversity.

Race is a term applied to people based on their appearance and is often considered to be a social construct. Race is often a difficult subject to talk about, not because of the subject complexity but because of the role that race plays in society; the subject brings up intense emotions and connotations.

What about ethnicity?

“the social group that a person belongs to and either identifies or is identified with by others, as a result of a mix of cultural and other factors, including language, diet, religion, ancestry and physical features traditionally associated with race.”

- Language or dialect
- Religion or customs
- Physical characteristics such as skin colour
- Environmental characteristics

It is important to remember that categorising or classing individuals by their physical appearance and skin colour is unreliable and unacceptable.

Any kind of discrimination is a product of fear for the unknown. We may have differences but we



are all humans and share the basic need to be heard and understood.

Our brain processes information by putting it into categories and looking for predictability and patterns. In cases where we are confronted with unknown stimuli, in our attempt to protect ourselves, we reject the stimuli without even noticing it sometimes.

People fear what they cannot understand. This leads to the only logical conclusion that if people understand differences in others, they will no longer fear them. They will be able to embrace and learn from them.

A stereotype is defined as “a fixed, over-generalised belief about a particular group or class of people.”

By stereotyping, we come to the understanding that a person has a set of characteristics and abilities that we assume all members of that group share.

Common stereotypes include:

- Racial - all people from that country are great at sports
- Gender - women are worse at driving than men
- Groups of individuals - young children don't like healthy food, or, all teenagers are rebels
- Sexual - believing characteristics about a person based on their sexuality
- Culture - people from certain cultures are lazy

Almost every culture or race has an out-dated stereotype attached.



Cultural stereotypes can have a damaging effect on the working environment at sea as they tend to be negative and can lead to intentional or unintentional discrimination. Stereotyping impacts our ability and efforts to understand others and can be hurtful and wrong.

Remember to think before you base your opinions on stereotypes, find out for yourself before you formulate your opinion about someone.

There are roughly 6500 languages spoken in the world today.

The top 4 most spoken languages are:

- English
- Mandarin Chinese
- Hindi
- Spanish

Language barriers can cause catastrophic accidents at sea. How can seafarers communicate if they don't understand each other? For example, if the captain and crew member are at different parts of a ship, a common language is required for them to communicate vital information.

In the eighties, The International Maritime Organisation made English or 'SeaSpeak' the international language of the sea, as, at that time, it was the most commonly used language on vessels. Nowadays, SeaSpeak is more modernly known as the Standard Maritime Communication Phrase.



SeaSpeak was designed to aid communication between ships whose captain's native language differed. The language has a small vocabulary, consisting of single short and concisely created sentences that replace long and complicated sentences.

SMCP has evolved over time and now serves three main functions:

- Internal communication onboard a ship
- Ship to shore communications
- Ship to ship communications

It is vital to remember that the sender gives a message, but to transmit it in a way that the receiver can understand and make use of it. Communication is a two-way street.

Risk Associated with a Lack of Cultural Awareness:

There are several obvious risks associated with a lack of cultural awareness onboard a vessel. Approximately 80% of accidents at sea result from human error, often resulting from miscommunications among multi-national crew members.



Risks include:

- Lack of team cohesion and trust
- Damage to the environment
- Financial loss and ship safety cost due to poor seafarers' wellness
- Reduced performance in seafarers, for example, making poor mistakes that can result in accidents, such as injury or death
- A deterioration in working conditions onboard
- The introduction of economical and legal issues

Communication & Loneliness:

Culture can affect communication in various ways. It determines the timing of interpersonal events and places where it is inappropriate to discuss certain subjects, and the tone of voice that is required for that particular topic.

Language barriers can negatively impact attempts to connect to other seafarers and can often leave some feelings left out and secluded, struggling to communicate their needs.

The effects of loneliness can become problematic when performing duties on board a ship, as this can cause seafarers to have problems processing information. This can lead to difficulties when making decisions and recalling memories and information.

Lack of communication can impact the mental health of seafarers, resulting in:

There are several benefits to ensuring that seafarers have an understanding and respect for cultural differences.

