

Father of the Nation
Founder of Maritime Bangladesh
Founder of Bangladesh Marine Academy



Welcome to the World of
SMART Maritime Education!



মেরিটাইম বাংলাদেশের প্রতিষ্ঠাতা বঙ্গবন্ধু শেখ মুজিবুর রহমান

বিজয়ের পরে ১৯৭২-৭৫ সালে স্বল্প সময়ে
তাঁর সময়োচিত ও সফল উদ্যোগে প্রতিষ্ঠিত হয়
'মেরিটাইম বাংলাদেশ'

- ১ | ১৯৭২ যুক্তরাজ্যের কারিগরী সহায়তায় 'বাংলাদেশ মেরিন একাডেমি' প্রতিষ্ঠা করা
- ২ | ১৯৭২ যুক্তরাজ্যে বাংলাদেশী মেরিনারদের উচ্চতর শিক্ষায় বৃটিশ সহায়তা/বৃত্তি প্রবর্তন করা।
- ৩ | ১৯৭২ ৫ ফেব্রুয়ারিতে বাংলাদেশ শিপিং কর্পোরেশন (বিএসসি) প্রতিষ্ঠা করা।
- ৪ | ১৯৭২-৭৫ বিএসসি-র জন্য ১৯টি সমুদ্রগামী জাহাজ সংগ্রহ করা; ওই ধারাবাহিকতায় ১৯৭৫-১৯৭৯ সালে আরো ৯টি।
- ৫ | ১৯৭২ চট্টগ্রাম সমুদ্র-বন্দরকে মাইনমুক্ত (পাকিস্তানী সেনাবাহিনী কর্তৃক স্থাপিত) করা।
- ৬ | ১৯৭২ মুক্তিযুদ্ধকালে নিমজ্জিত জাহাজ সরিয়ে 'নিরাপদ কর্ণফুলী চ্যানেল' নিশ্চিত করা।
- ৭ | ১৯৭২ চট্টগ্রাম ড্রাইডক অ্যান্ড হেভী ইন্ডাস্ট্রিজের নির্মাণকাজ শুরু; ১৯৮৩ সনে চালু হয়।
- ৮ | ১৯৭৩ 'ডেভলপমেন্ট অব মেরিন একাডেমি ১৯৭৩-৮০' শীর্ষক প্রকল্প গ্রহণ করা।
- ৯ | ১৯৭৩ রাশিয়ার সহায়তায় 'মেরিন ফিশারিজ একাডেমি' প্রতিষ্ঠা করা।
- ১০ | ১৯৭৩ বঙ্গবন্ধুর জাপান সফরের সূত্রে, ১৯৭৯-১৯৮০ সালে 'সম্পূর্ণ নতুন' ৪টি সমুদ্রগামী জাহাজ সংগৃহীত হয়।
- ১১ | ১৯৭৩ খুলনা শীপইয়ার্ডে ১,০০০ টনের জাহাজ নির্মিত; বড় জাহাজ নির্মাণ শিল্পের সূচনা।
- ১২ | ১৯৭৩ বঙ্গোপসাগরে তেল-গ্যাস অনুসন্ধানের সূচনা এবং পেট্রোলিয়াম অ্যাক্ট ১৯৭৪ প্রণয়ন করা।
- ১৩ | ১৯৭৪ বঙ্গোপসাগরে অধিকার নিশ্চিত করার লক্ষ্যে 'টেরিটোরিয়াল ওয়াটার এন্ড মেরিটাইম জোনস অ্যাক্ট ১৯৭৪' প্রণয়ন করা।
- ১৪ | ১৯৭৪-৭৫ প্রধানমন্ত্রীর 'অতিরিক্ত' হিসাবে নৌ-পরিবহণ মন্ত্রণালয়ের দায়িত্ব পালন।

তথ্য-সংগ্রহ: নৌপ্রকৌ. সাজিদ হোসেন (১৫ ব্যাচ), কিশোর মুক্তিযোদ্ধা, সেক্টর-৭

SMART Steps taken by Bangabandhu

Hon'ble Prime Minister Sheikh Hasina Pioneer of Female integration in Seafaring



Cadet Nabila Best all-round Cadet President's Gold Medalist



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February 23-26, 2023



Technical Seminar
24 February 2023
BBCFEC, Purbachal, Dhaka

Maritime
Education
towards
SMART
Bangladesh



Dr SAJID HUSSAIN CEng CMarEng FIMarEST
Chartered Marine Engineer
Commandant, Bangladesh Marine Academy, Ctg

IMarEST London Recognised Speaker
Governor, Board of Governors, WMU Sweden
Trustee & Council Member, IMarEST London
IMO Maritime Ambassador

Introduction

Maritime education plays an important role in developing a country's shipping industry. It is particularly relevant to our Bangladesh which is spontaneously a maritime country with long and strong heritage of seafaring and river-plying.

Maritime education can help developing a skilled workforce for the shipping industry, including seafarers, shipbuilders, and port operators. It will contribute in developing our desired **SMART Bangladesh** by providing opportunities for innovation and technology transfer in our maritime sector.



Bangladesh Marine Academy

“Home of Maritime Brilliance”



Maritime Education

A unique combination of academic studies, practical skills and mental strength. Instead of 'Certificate of Knowledge' a marine certificate is named as 'Certificate of Competency (CoC).

Seafarers are rotating the Earth

The earth is being rotated by nearly 1.9 million Seafarers (Marine Officers – Marine Engineers – Marine Ratings) through their day-n-night effort in moving yearly nearly 11 billion tons of cargo (commodities, fuel, foodstuffs, goods and products) every year by over 74,000 merchant ships from country to country ensuring 7.8 billion humans' well-being.

Seafaring

Sea-transportation is the wheel of the global trade and growth of economy. Living lonely and working on floating and moving entity for months away from one's family and friends is not an easy task.

Maritime Education Stream

1st Step: Trainee Cadet

4-years' Pre-Sea Marine Engineering (3rd year at Sea) and simultaneously
4-years' Bachelor (Honours) Degree from Bangabandhu Sheikh Mujibur
Rahman Maritime University)

CoC Class III Deck Officer/Marine Engineer >>>

2nd Step: 2nd/3rd Deck Officer or 3rd/4th Marine Engineer

12 months at Sea

CoC Class II Deck Officer/Marine Engineer >>>

3rd Step: Chief Officer or 2nd Marine Engineer

12 months at Sea

CoC Class I Deck Officer/Marine Engineer >>>

4th Step: Master Mariner (Captain) or Chief Marine Engineer

And then: REVALIDATION of CoC Class I in every 5 years

E-Learning & Maritime Education Now and in the Forthcoming Future

Bangladesh Marine Academy's journey
1972 > 2023 > 2041 >>>



Evaluation of our Cadets

- ❑ **Qualitative Evaluation**

Equipped with Maritime Leadership & Professional Competence

- ❑ **Quantitative Evaluation**

Input: Cadet to Captain/Chief Engineer => US\$ 32,000

Output: Earning in 20 years sea-service => US\$ 1.3 Million

- ❑ **Yearly earning for the country**

US\$ 250 Million (3,000 Crore Taka) << by 5,000+ Graduates



Academy's Educational Expedition

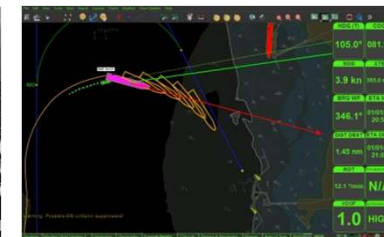
Academy follows a 'strategy' for developing world-class Marine Cadets, Marine Officers and Marine Engineers for national and international ocean-going merchant ships enriched with Academic knowledge & Professional Competence as per IMO STCW Convention.

- 1972 – Contd. > Cadet Training
- 1973 – 1980 > Development of Marine Academy (**BTCO Project**)
- 1975 – 1980** > **UK MNTB** (City & Guilds of London Institute's Cadet Training)
- 1982 – 1987 > **UK CoC Exam Centre**
- 1982 – Contd. > Preparatory & Ancillary courses
- 1990** – **IMO's WMU Sweden's Branch** status
- 1991 – 2003 > Bachelor 2-years PASS Degree
- 2003 – 2114 > Bachelor 3-years PASS Degree
- 2011 – **EU EMSA's** recognition
- 2015 – Contd. > Bachelor 4-years HONOURS Degree
- 2016 – DNV (Norway)'s ISO 9001 Quality Certification
- 2019** – **UK MNTB** Recognition achieved (*Paradise regained!*)
- 2019** – **WMU Sweden's Partnering** status (*upgraded from Branch status*)
- 2022 – Introduction of STEAM-ship Engineering course
- 2022 – Introduction of Electro-Technical Officers' course
- 2022 – **UK Solent University** recognition achieved

Academy's

Hi-Tech expedition 1972 – 1998

- 1973 – Nautical/Engineering Lab equipment (from UK)
- 1976 – Overhead Projectors in Class-rooms
- 1978 – Automatic Cyclostyle Machine
- 1979 – 3 Training Boats (from UK; under BTCO Project)
- 1987 – Ship Handling Simulator (from Norway)
- 1991 – PC without Hard-disk
- 1991 – English writing software (Word Star, Word Perfect)
- 1992 – Bangla writing software (Barna, Barnana)
- 1993 – PC with Hard-disc
- 1994 – AutoCAD Software
- 1996 – Laptop Computer



Academy's

Hi-Tech expedition 1999 – 2014

- 1999 – Internet connection
- 2002 – Website
- 2005 – Multimedia Projectors in Class-rooms
- 2010 – E-Learning in Education
- 2012 – Computer Lab (50 PCs)
- 2012 – Control Engineering Lab
- 2013 – Electronic Lab
- 2014 – Smart Board
- 2014 – Online Admission Application
- 2014 – Laptop Computers for Instructors
- 2014 – Steam Boiler with auto-control
- 2014 – Twin generator with paralleling control



Academy's

Hi-Tech expedition 2014 – 2023

2015 – PC & Audio in Class-rooms

2015 – Video Conference facility

2015 – LAN for computers

2015 – 24x7 Wi-Fi coverage for full campus

2015 – Computers in Library

2016 – E-Library (E-books, Audio/Video, Simulation Software)

2019 – Navigation Simulator

2020 – Education Management Solution

2020 – Distance Education (due to covid pandemic)

2022 – Engine Simulator

2023 – High-voltage & Hydraulic Simulators (in process)



Academy's Hi-Tech expedition – 2025

2025 – **Bangabandhu Techno-Marina Complex**
(in process; approved, in principle)

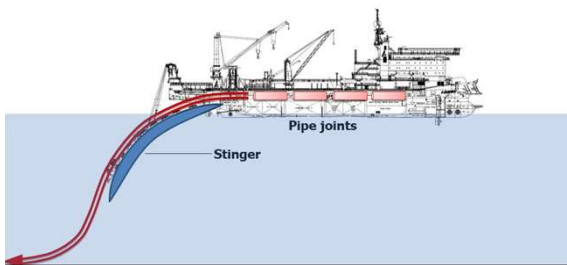
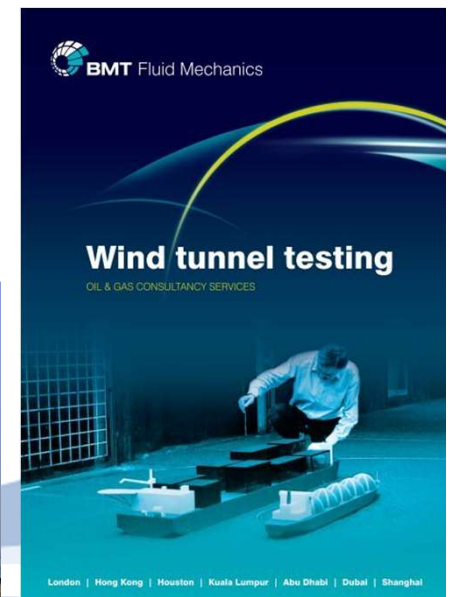
2025 – **Full-Mission (Hardware-based) Simulator**
(in process: Korea's EDCF Project)



Academy's

Hi-Tech expedition 2026 - 2041

- ❑ Procuring a Training-cum-Trading (ocean-going) Ship.
- ❑ Introduction of MSc & PhD research
- ❑ Introduction of studies for autonomous ships.
- ❑ Introduction of Shipbuilding Engineering
- ❑ Procuring a Dynamic Positioning (DP) Simulator
- ❑ Procuring Wind Tunnel for propulsion, manoeuvring, dynamic positioning, mooring and stability.
- ❑ Underwater Hyperloop Tunnel for a ship's response to wave action.
- ❑ Free-surface Cavitation Tunnel for testing propeller's operational behavior.
- ❑ IoT, Digital Route Management of Ships, Smart Manoeuvring Control/Autonomous Control, Smart Propulsion Systems, Robotics/Drones/3D Printing



Future Autonomous Ships

- ❑ Self-driven, remotely-operated and crewless robotic vessels!
- ❑ Wind-powered drones may circle the ocean for recording climate and current data. Can the ocean-going ships be left aside!
- ❑ Ships are already using navigation assistance; will receive more robotic control.





MARITIME
E-LEARNING
www.maritimeelearner.com



e-Learning

and its incorporation into
maritime education



Evolution of Internet >>
Limitless ocean of knowledge >>
New approach in teaching & learning >>

Electronic Learning

Students enjoy a spontaneous opportunity of management of learning process in their own hands!





**E-Learning comes from all directions i.e.
3D – 360 degrees!**

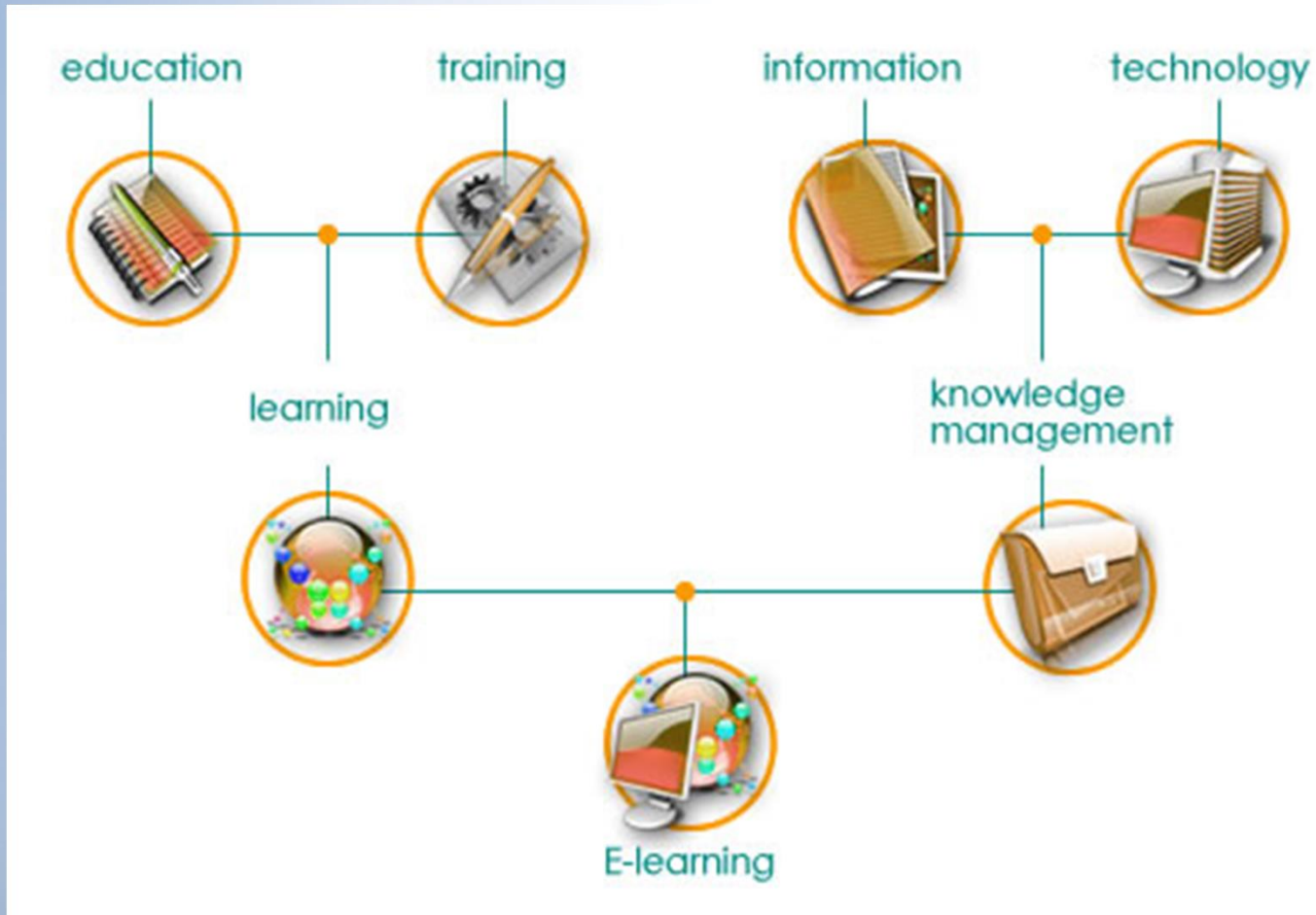




Three centuries ago, Isaac Newton wrote...

“...to myself I seem to have been only like a boy playing on a seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.”





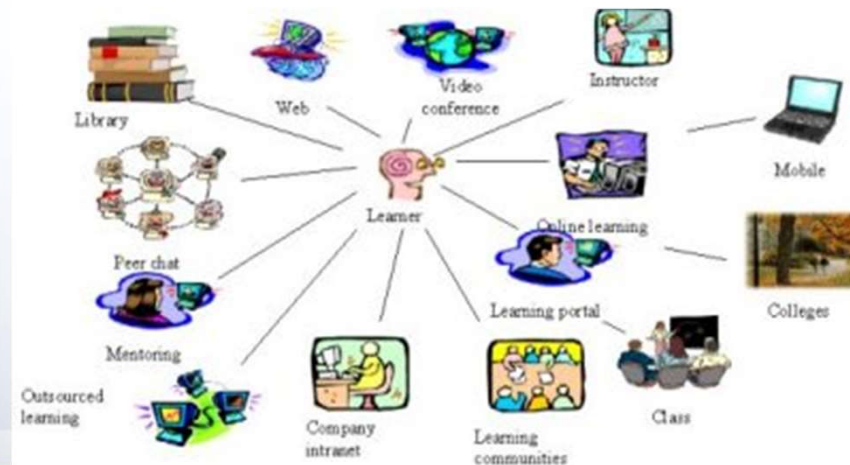
E-Learning Stream

Educational Paradigm Shift

Campus centered
Instructor centric
Directed learning

Network centered
Student centric
Experiential
learning

From instructor-centric to learner-centric



Traditional Learning	Digital Learning
Four-year's Degree Training as Cost Centre Learner Mobility Distance Education Correspondence & Video One Size Fits All Geographic Instituting Just-in-Case Isolated	Forty-year's Degree Training as Competitive Advantage Content Mobility Distributed Learning High-Tech Multimedia Centres Tailored Programs Brand Name Universities & Celebrity Professors Just-in-Time Virtual Learning Communities



Advantages of e-Learning

- Liberty of learners' positions
- Unrestricted choice of period & speed for learning
- Fast propagation of new information
- Adaptive education
- Interactive learning ensures success
- Complete learning process can be monitored





Disadvantages of e-Learning

- Lack of personal contact of lecturers/learners
- Learning on-screen difficult/unpleasant/unhealthy
- Installation time consuming/complex/expensive
- E-learning courses too expensive



e-Learning into Maritime Education

- **Spontaneously, mariners are students of distance learning at sea.**
- **At sea they remain busy at workplaces & cabin-desks for CoC exams.**
- **Cadet to Captain/Chief Engineer, a seafarer remains a full-time learner.**





E-Learning – Live media of learning


- A mariner is always a learner at sea and always away from land!
- Dry-pages (!) of self-learning books make sea-life more monotonous!
- e-Learning is an intelligent solution at sea.





Leading e-learning providers in MET – Distance Learning

- **MLA College, London**
- **University of Plymouth, UK**
- **World Maritime University, Sweden**
- **Lloyds Maritime Academy, London**
- **Videotel**
- **University of Montenegro**
- **California Maritime Academy (CMA)**
- **Singapore Tele-data Maritime Solution cooperation**
- **Baltic Shipping Council and Lloyd's Register**
- **OOCL and China Shipping Group**
- **Seagull AS**

 **VIDEOTEL**
ONLINE TRAINING COURSES


Courses on the Web

The Internet now offers easy access to our range of interactive courses. Advances in technology mean that our courses maintain the same quality material but come with the advantages of 24hr round-the-world access and a host of extra features to make your training effortless:


- View course progress
- Receive updates
- News of latest courses
- Certificates for course completion


Each course includes:

- Excellent, comprehensive training information
- Exciting footage and graphics
- Clear audio narration
- Valuable interactive tests
- Stimulating workbook exercises



Quick and easy registration:
To get our courses all you need to do is fill in the online registration form and secure online payment form* (A company can register an individual or a group). We provide you with a unique Training ID and you can login straightaway.
*Alternative payment methods are available. Please contact oncourse-helpdesk@videotelmail.com

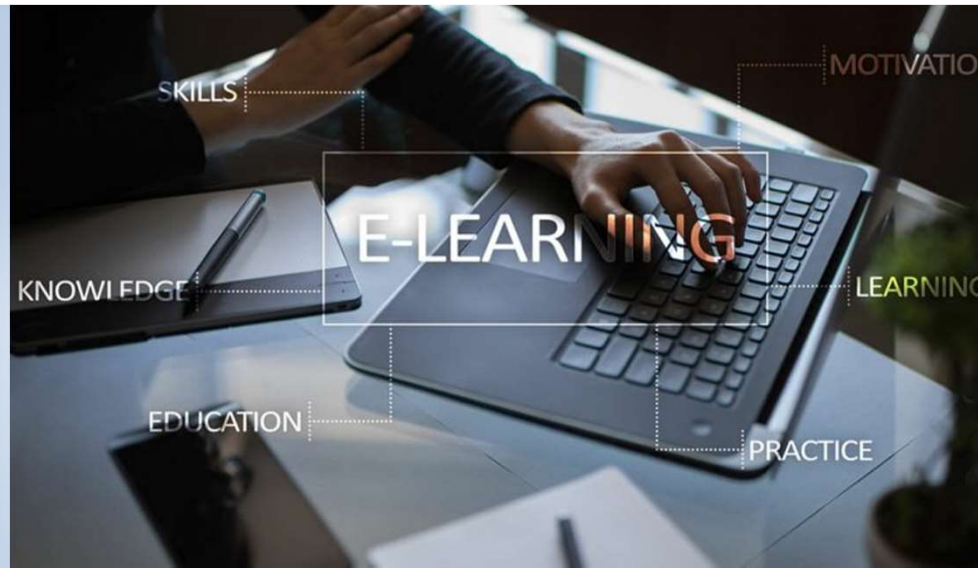
 **VIDEOTEL**
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Available Online Now!

- **Safety Officer Training Course**
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- **Ship Security Training Course**
- **Incident Investigation: Analysis & Reporting Training Course**
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Details from: Loulla Mouzouris
Videotel Marine International
84 Newman Street, London, W1T 3EU, UK
Tel: + 44 (0) 20 7299 1800 | Fax: + 44 (0) 20 7299 1818
www.videotel.co.uk | mail@videotelmail.com



Maritime e-Learning – Style & Tune

- In forthcoming future, it will move from formal to informal learning.
- Learning will be embedded in everyday's sea-life with interaction with other seafarers.
- Learning will be a collective practice delivered to a group of seafarers in different ships.
- Right knowledge – at the right time – by the right person – in the right context.



Education in the Past

- Learning used to be a 'listening' to a more knowledgeable person.
- Schools engaged with time composed of teachers and learners.
- Books came as "still pictures" of certain amount of knowledge.
- Success in examinations came as certificates.



h HIGH TECHNOLOGIES FOR HOME. THE FUTURE IS KNOCKING ON THE DOOR

Future is knocking!

- Now, the future is knocking with a demand of **live book**.
- Paving the path of lifelong continuous learning with no formal graduation for a **static certificate**.
- Most likely the future e-Learning will be flowing/floating everywhere.
- The human will remain submerged into that ocean of knowledge used to be a 'listening' to a more knowledgeable person.

Live Maritime Education!



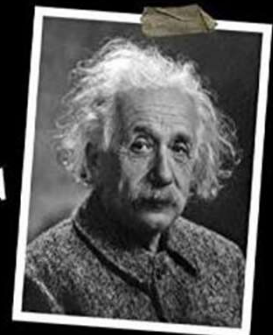
- Maritime Education is competence-based learning – advanced towards e-Learning.
- CoC needs revalidation means always remain live!
- Not far away, the whole stream of Maritime Education will be online that will ensure the seafarers with live knowledge at all time!
- Senior-most Seafarers are spontaneously on-board 'live teachers'.

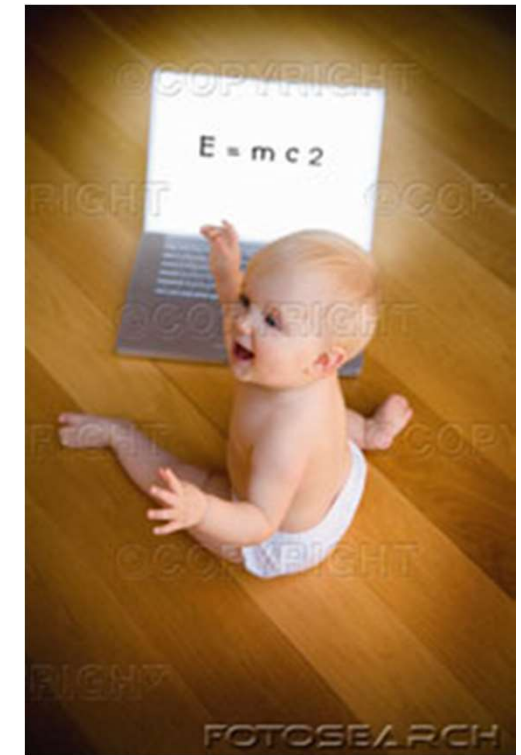
It's time to Future!

- Man is moving from the earth to moon to mars and in way to even the sun!
- "If you do not live in the future today, you will be living in the past tomorrow." – source unknown.
- Albert Einstein said: "Your imagination is a preview of coming attractions."



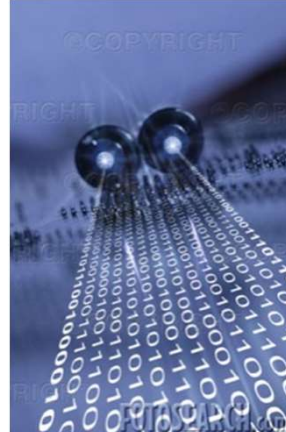
"Education is not the learning of facts, but the training of the mind to think."
-Albert Einstein





It's time to Future!

- In coming 100 years, human will be in a time surrounded by unimaginable scientific innovations many times more than what have achieved in last 100 years.
- Future learning and teaching would be spontaneously a game!



Let's fly to the e-Future for E-Learning!



Bangladesh Marine Academy

“Fostering Marine Generation Next”



Conclusion

To achieve these goals, it is important for the government and the private sector to work together to invest in the development of maritime education programs and infrastructure including investing in equipment and technology, as well as offering scholarships and other incentives to attract students to maritime sector.

In summary, maritime education is a key driver for developing a strong and sustainable maritime sector in Bangladesh and can contribute to the country's overall economic and social development as a smart nation in way of our desired **SMART Bangladesh**.



Our Cadets' footsteps on every corners of the World!





HOME OF
MARITIME
BRILLIANCE



বঙ্গবন্ধু ও
বিজয়ের স্মৃতি

বঙ্গবন্ধু দিবস ২০২১

বিজয়ের
শুভেচ্ছা

মহান
বিজয়
দিবস



“মাতৃ কোটি মানুষকে দাবায় রাখতে পারবো না।”

EXPLORE THE



Thanks indeed for your attention!

