Maritime Education & Training

Arab Academy for Science, Technology and Maritime Transport
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Overview

Establishing the Arab Academy for Science, Technology and Maritime Transport (AAST &MT) as a Regional Institute for Maritime Transport started as a notion in the Arab League Transport Committee’s meetings on the 11th of March, 1970. This notion came after the Arab League’s Council issued Decree No. 2631/1970 in its fifty third session stipulating the endorsement of founding a regional center for Maritime Transport training. The decree commissioned the Arab Republic of Egypt, on behalf of all the Arab countries, to ask for technical aid from the United Nations’ organizations specialized in the field of Maritime Transport.

By the end of 1971, the United Nations delegated a joint committee of its concerned organizations to study the need of the region for this project. It highlighted the necessity of founding a regional institute for maritime training and also of providing adequate aid for it. The United Nations Development Programme (UNDP) approved funding 3.2 million dollars on condition that the participant Arab countries contribute a sum of 8.25 million Egyptian pounds during a period of five years. Moreover, after visiting many of the region’s countries, the committee chose the city of Alexandria, known for its great cultural legacy, as a location because of its important geographical location, which is in the middle of the whole Arab region, as well as the abundance of available qualified personnel.

Eventually, the United Nations Development Programme (UNDP) prepared Document No. (REM/71L286/01/19) for the project of establishing the Arab Academy for Maritime Transport in Alexandria in cooperation with the International Maritime Consultancy Organization of Governments as an executive agency of the project and the United Nations Conference for Trade and Development as a participant (UNCTAD).
About Us

Maritime Affairs
The Higher Council for Maritime Affairs was established in 2013 within the organizational structure of the Academy. It is headed by H.E. Professor Dr. Ismael Abdel Ghafar, the Academy’s President.

Maritime Affairs comprise the following entities of the Maritime Sector:
- College of Maritime Transport and Technology
- College of Fisheries and Aquaculture Technology
- Institute of Maritime Upgrading Studies
- Maritime Safety Institute
- Sea Training Institute
- Port Training Institute
- Integrated Simulators Complex
- International Maritime Organization Compound
- Regional Maritime Security Institute
- Maritime Research and Consultation Center
- International Forum for Maritime Transport
- Maritime Postgraduate Studies Institute
- Quality Maritime Education and Training Deanery
- Maritime Certificates Renewal Administration

Maritime Affairs are primarily concerned with setting the strategies and mechanics necessary for the implementation, supervision and follow-up of the general policies concerned with Maritime Affairs at the internal, local and international level.

Maritime Affairs also aim at achieving integration of the activities of the College of Maritime Transport and Technology and the Institutes specialized in Maritime Affairs, in addition to preparing the infrastructure necessary for supporting Maritime Education and Training Sector.
Vision
We aspire to become an eminent milestone in the Arab world that is globally distinguished in the field of maritime education and training; we also seek to be the beacon of the Arabs across the world’s seas.

Mission
We aim to provide the shipping industry with competitive distinguished cadres who are able to meet the regional & international requirements. In addition, we provide studies, researches and consultation to support and develop the shipping industry, using the latest technology that is up to the international standards and accreditation.
International Maritime Organization Compound (IMO)

The IMO Compound was established in the Arab Academy for Science, Technology & Maritime Transport as a distinguished entity. It was inaugurated by the IMO Secretary-General and H.E. the Egyptian Minister of Transport in August 2005.
International Forum for Maritime Transport

It aims to unify the Maritime entities with joint goals in order to establish a unified integrated entity capable of meeting the demands of the International Maritime market through establishing a partnership between education, training and the maritime industry.

It also provides strategic planning to maximize the participation of the Arab Academy for Science, Technology and Maritime Transport (AAST& MT) in the maritime industry at the regional and international level and Maritime stakeholders such as maritime institutions, organizations, companies, bodies and maritime authorities.
Approval & Accreditations
Certificates of Accreditation

Quality Management System Certificates - ISO 9001:2015

Place and date: Vimercate (MB), 05 December 2018

For the issuing office:
DNV GL – Business Assurance
Via Energy Park, 14
20871 Vimercate (MB) - Italy
Zeno Beltrami
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.


www.dnvgl.com

MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 122826-2012-AQ-ARE-RvA

Initial certification date: 21 October 2012
Expiry date of last certification cycle: 20 October 2018
Date of last recertification: 27 July 2018

Valid: 05 December 2018 - 20 October 2021

This is to certify that the management system of
Arab Academy for Science, Technology & Maritime Transport - Integrated Simulators Complex (ISC)
Abo Qir, Alexandria, Egypt

has been found to conform to the Quality Management System standard:
ISO 9001:2015

This certificate is valid for the following scope:

Provision of simulation based training, training and consultation services in the fields of Marine, Environmental and Crisis Management, Maritime Communication, and Oil and Natural gas (EA: 37, 35)
Certificates of Accreditation
The Central Evaluation & Accreditation Agency (ZEvA) - Hannover, Germany

Certificate of Accreditation
Upon application by the
Arab Academy for Science, Technology and Maritime Transport, Alexandria

the Commission for International Affairs of the Central Evaluation and Accreditation
Agency Hannover (ZEvA) has accredited the following Bachelor's programme:

Maritime Transport Technology
offered by the College of Maritime Transport and Technology

The accreditation is valid until 31 August 2022.
Hannover, 3 March 2017

Prof. Dr. Wolfgang Lucke
Academic Director 2014

Hermann Recke
Managing Director 2014

Member of: Registered in:
ENQA eqar

Bachelor's Programme Maritime Transport Technology

Certificate of Accreditation
Upon application by the
Arab Academy for Science, Technology and Maritime Transport, Alexandria

the Commission for International Affairs of the Central Evaluation and Accreditation
Agency Hannover (ZEvA) has accredited the following Bachelor's programme:

Marine Engineering Technology
offered by the College of Maritime Transport and Technology

The accreditation is valid until 31 August 2022.
Hannover, 3 March 2017

Prof. Dr. Wolfgang Lucke
Academic Director 2014

Hermann Recke
Managing Director 2014

Member of: Registered in:
ENQA eqar

Bachelor's Programme Marine Engineering Technology

Certificate of Accreditation
Upon application by the
Arab Academy for Science, Technology and Maritime Transport, Alexandria

the Commission for International Affairs of the Central Evaluation and Accreditation
Agency Hannover (ZEvA) has accredited the following Master's programme:

Ship Operation and Marine Safety
offered by the Maritime Postgraduate Studies Institute

The accreditation is valid until 31 August 2022.
Hannover, 3 March 2017

Prof. Dr. Wolfgang Lucke
Academic Director 2014

Hermann Recke
Managing Director 2014

Member of: Registered in:
ENQA eqar

Master’s Programme Ship Operation & Marine Safety
Education

College of Maritime Transport & Technology

The College of Maritime Transport and Technology offers undergraduate studies in practical and theoretical topics of Marine Transportation, leading to a Bachelor of Science Degree and certificates of competency in the following:

- B.Sc. in Maritime Transport Technology + 2nd Mate Certificate of Competency
  with the following specialization:
  - Maritime Technology
  - Maritime Safety and Environmental Protection
  - Offshore Technology
  - Shipping and Port Technology
- B.Sc. in Maritime Engineering Technology + 3rd Engineer Certificate of Competency
- B.Sc. in Marine Electrical Technology + ETO Certificate of Competency
College of Fisheries and Aquaculture Technology

College of Fisheries and Aquaculture Technology (CFAT) aims at preparing cadres of qualified graduates that are capable of managing and developing the sector of fish resources of both Fisheries and Aquaculture.

CFAT offers Bachelor degree in “Fisheries Technology” accredited upon the decision of the Egyptian Supreme Council of Universities.

CFAT works on inspiring the creative and innovative energies of the students in the framework of applied scientific research oriented to community service, through the following:

- Helping to manage the natural fish resources through assessing the status of fish stocks and creating new policies to sustainably develop the fisheries.
- Training students to command and maintain fishing vessels and deal with navigational equipment as well as the modern fishing devices.
- Designing and managing the different aquaculture systems of both marine and freshwater fish species.
- Providing technical consultations and scientific support for carrying out feasibility studies for investment in Fisheries and Aquaculture sectors.
Maritime Postgraduate Studies Institute

The Maritime Postgraduate Studies Institute awards the following postgraduate degrees in Maritime Transport Technology:

**Higher Diploma in the following specializations:**
- Maritime Transport Technology
- Ship Surveying
- Cargo Surveying

**Masters of Science in the following specializations:**
- Ship Operation and Marine Safety (*Accredited by ZEvA Hanover*)
- Hydrographic Surveying
- Ship and Port Operation Management
- Maritime safety Operation Management
- Marine Survey
- Protection of Marine Environment
- Marine Engineering Survey
- Advanced Navigation

**Doctorate Degree in maritime Transport Technology**
Institute of Maritime Upgrading Studies
The Institute of Maritime Upgrading Studies is in charge of qualifying and training deck officers and marine engineers to obtain the specialized marine certificates which qualify them to work on-board ships and carriers of all types according to the requirements of the International Maritime Organization (IMO) and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW, 78) as amended and offering the following Certificate Of Competency:

- 2nd Mate, Chief Mate and Master
- 3rd Engineer, 2nd Engineer and Chief Engineer
- Electro-Technical Officer (ETO)
**Maritime Research and Consultation Center**
A world-class facility for Maritime research and consultation well-recognized and respected throughout the Arab world, Egypt and Africa in the following fields:
- Management and Economics of International Transport and Logistics
- Information Technology and its Applications in the Maritime Industry.
- Engineering Project Management.
- River Transport
- Marine Research
Training

Sea Training Institute
The Sea Training Institute manages and follows up cadets practical training through the Guided Sea Training programme that operates the Academy’s Training Ship AIDA IV to provide a comprehensive on-board training for cadets, in addition to Planned Sea Training through which the Sea Training Institute provides a follow-up of, and guidance to, cadets on-board different merchant ships to prepare the cadets to work at sea and be fit for the professional life on-board different types of merchant vessels. Cadets gain theoretical and practical insight into many different areas of vessel operations, including maritime technology, navigation, safety, cargo operations, leadership and management. In addition to Yachting skipper training programmes that cover all types and levels of boating and water sports, ranging from learning to sail a dinghy, through to yacht cruising.
Maritime Safety Institute
Maritime Safety Institute (MSI) aims to improve safety at sea for both shipping and oil and gas offshore industries by offering a vast selection of maritime safety courses by using technological advanced facilities and equipment. MSI offers maritime safety education and training for personnel serving on-board merchant vessels in addition to personnel working on-board oil and gas offshore units, in accordance with the IMO instruments and OPITO standards as follows:

- Marine programmes for seafarers holding seaman’s book
- Offshore safety courses
- Specialized maritime courses
- Safety Management System Programmes
- E-Learning programmes
Regional Maritime Security Institute
The Regional Maritime Security Institute was established to implement the special international requirements of maritime security.
The RMSI was certified as a recognized security organization (RSO) in Egypt, Saudi Arabia and the International Maritime Organization (IMO).
The activities of RMSI are:
- Assisting ports in Egypt and in Arab countries comply with the international requirements.
- Developing ships security plans and conducting security exercises on-board ships.
- Qualifying all maritime personnel to implement the special requirements of maritime security.
- Conducting all different verifications for ports and port facilities.
**Integrated Simulators Complex**

The Integrated Simulators Complex (ISC) provides bi-lingual simulation training to professionals within the Marine and Oil industries in the Middle East region and the rest of the world by utilizing top of the line simulation technology.

The ISC includes:

- Marine Simulators
- Environment Protection and Crisis Management Programs
- GMDSS Simulator
- Natural and Petrochemicals Simulator
- Offshore Simulators
- Marine & Offshore Training Center - Cairo
Port Training Institute

Port Training Institute (PTI) aims to train and build capability for ports industry work force to meet Short-Long term maritime industry challenges & innovations. PTI is considered one of the elite institutes in the region & at the international level as it always sustains the training & educational development in all Ports training & education needs.

With its resources & facilities, PTI can do the task of training and developing Ports Labor to professionally cope with maritime industry challenges and to participate in the maritime trade chain efficiently, with training present in the port-related IMO & ILO Conventions, Recommendations.

Widespread packages of training strategies (basic level & specialized) recommend making ports development projects take advantage of their economic growth opportunities by Increasing the capacity building of the port sector training to foster job creation in Egypt, the Arab & African regions through Building and improving ports workforce skills in many sectors such as:

- Ports and logistics programme package
- Port workers development programme package
- Seafarers basic studies programme
- Trucking & cranes programmes package
- Electronics port management programme package
- Managerial programme package
- Financial programme package
- English programme package
- Engineering and technology programme package
FACILITIES

(A) Simulators

**Full Mission Ship Handling Simulator**
It provides full mission real-time computer-based simulation facility capable of supporting advanced training in navigation, seamanship, maneuvering and the operation of vessels under normal and potentially hazardous conditions.
**Integrated Bridge System (IBS)**
Integrated Bridge System (IBS) complies with IMO Resolution MSC.64(67), Annex I, of the International Maritime Organization (IMO), and other relevant IMO performance standards, in order to meet the functional requirements contained in the applicable IMO instruments, not precluding multiple usages of equipment and modules or the need for duplication.

**Mini Bridge Simulator**
Navigator competency items related to navigation bridge operations are practiced and assessed using the Navi-Trainer Professional 5000 simulator:
- Plan and conduct a passage and determine position
- Maintain a safe navigational watch
- Respond to a distress signal at sea
- Maneuver the ship
**Fishing Simulator**

A fishing module as part of the Navi-Trainer Professional 5000 simulator is designed to form and develop navigational and fishing professional skills, such as:

- Ship handling during work with fish-finding hydroacoustic devices;
- Handling of the fishing gear and deck machinery (pelagic and bottom trawls, a purse seine and a long line);
- Safe navigation during work in a group of ships;
- The fish-finding devices that are simulated are:
  - FURUNO CH-26 fish-finding sonar;
  - FURUNO FCV-780 hull-mounted sounder;
  - FURUNO CN net-mounted sounder and 4) Trawl controlling device (based on the ScanBas devices by ScanMar);
- The fishing gear models (pelagic and bottom trawls, purse seines & long lines) are simulated;
- Fish shoal model simulates the behavior of fishing objects, since it is a cluster of fish, where each group is able to respond to external irritants, while trying to stay in one cluster. Moreover, Fish shoal can move with the defined speed and course on a plotted route.
**TUG Boat Simulator**

The system provides a better insight into the capabilities and limitations of powerful and high maneuverable tugs. It improves the practical knowledge of handling modern steering devices, various types of propulsion and towing operations best practice. The system provides training in using: Voith Schneider (VS) Tractor Tug, Conventional Tug, Azimuth Stern Drive Tug (ASD), Pusher Tug and River Towing Tug.

**Small Fast Ship Simulator**

The system develops skills in handling and utilizing the best practice in different types of boats in various circumstances and different harbor operations. It also provides small fast ships with up to 60 knots speed for training authorities such as Coast Guard Patrolling, Search and Rescue and Recreational Fast Boats.
Vessel Traffic Service Simulator (VTS)

It provides training for operators and supervisors working in vessel traffic service stations and supports the training process. Indeed, it is evident that it is one of the most important aspects of any new programme for the careful scheduling of the knowledge elements in conjunction with the simulation exercises specifically designed to apply these elements. Traffic models with which realistic sailing behavior and typical maneuvering character are tied can be created, thus facilitating the simulation of realistic traffic situations.
**ECDIS Labs Simulator**
The Marine Simulators Systems installed the newest ECDIS LAB simulator (Kelvin Hughes Manta Digital ECDIS System) in the world for marine electronic chart systems with cooperation with Kelvin Hughes limited, consisting of 10 stations to provides training for masters, officers and basic studies students in accordance with the requirements STCW 95 and its Amendments planned to enter into force in 2012. It includes:

- A worldwide library of Electronic Navigation Charts (ENCs) and ARCS worldwide.
- Chart update system to update/correct paper & Electronic Navigation Charts and ARCS (Chart Co Service).
- An ECDIS station installed in the Fast Boat Simulator to compile and upgrade the system integration data and is connected to the 10 ECDIS stations in the ECDIS lab. It is used to apply real time simulation for training purposes.
**Full Mission Engine Room Simulator**

The Engine Room Simulator was developed for the education, training and assessment of Engine Department Personnel, including Officers In-Charge of Watch, Second and Chief Engineers. The high level of physical and behavioral realism of ERS creates a professional environment for the following types of Marine Engineering Training:

- Familiarization and Education
- Standard Operation and Watchkeeping
- Advanced Operation and Troubleshooting
- Basic Physical and Technical Knowledge
Full Mission Offshore Vessel Simulator “Class A”
The Full mission offshore vessel simulator Class “A” is approved as a Class “A” Dynamic Positioning simulator from London Nautical Institute. The Simulator also has very advanced Anchor Handling Operation Capability Training in Deepwater, Which is approved by DNV Class and Maersk Training company. With 360 Degree of visualization, this full mission simulator enables realistic sea offshore training and DP operations to local mariners.

Full Mission Offshore Crane Simulator “Class A”
The new Full Mission Offshore Crane simulator (Class A) installed in the ISC Complex is capable of simulating a wide range of offshore crane types on-board rigs, offshore vessels, barges, etc. It also covers subsea crane operations and specific crane operations which the client may require. The new offshore Crane Simulator is the first of its kind for crane operators to obtain offshore approved and recognized crane training by the offshore industry worldwide. Maersk Training approved the new Simulator for Maersk Crane Training Programme.
**Liquid Cargo Handling Simulator**

TRANSAS Liquid Cargo Handling simulators are designed to train and certify crewmembers of liquid cargo tankers, as well as other staff responsible for the safe cargo handling and the operation of auxiliary equipment. Liquid Cargo Handling simulator provides an exact, detailed copy of vessel/terminal systems and their compartments.

This simulator is an ideal solution for training centers, academies, government authorities, shipping companies, coastal centers and manning agencies. The simulator also enables on-board training and demonstration of competency. Liquid Cargo Handling Simulator replicates a cargo control room, allowing a comprehensive study of the tanker and terminal layout, including its machinery and systems according to international standards and requirements:

- General arrangement of the tanker and its systems
- Maintenance of the tanker systems at management level
- Control of vessel ballast system
- Control of trim, stability and stress
Natural Gas & Petrochemicals Simulator

This Simulator introduces new training methods to supplement the traditional methods of on-board training. The liquid Cargo operations simulator provides real time simulation of the process Flow Control Systems used in storage and transfer of potentially hazardous bulk liquid from shore to ship and from ship to shore.

The Simulator allows a range of courses to be offered which are presently applicable to both ship and shore involved in handling LNG, LPG, Crude oil, oil Products and Chemical Cargoes.
Global Maritime Distress & Safety System Simulators
The Arab Academy for Science, Technology and Maritime Transport (AAST&MT) has established the GMDSS simulator to start working in 1996, which is a Computer Based Training (CBT) system incorporating the latest virtual touch screen technology to enable the student to act out simulated distress and routine situations which cannot be conducted on-board to avoid false distress alerts. For more reality and integration, the system contains a complete set of real GMDSS equipment.

The simulated communications equipment accurately replicates the GMDSS functions which meet the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for seafarers (STCW, 1978) and its Amendments set by IMO.
The Crisis Management Simulator

This Simulator was designed to fulfill the requirements for Crisis and Disaster Management using the Incident Command System (ICS) as a management ad hoc organization. The system was established, developed and used in Canada, United States and Europe.

The Crisis and Disaster Management Simulator is a complete, fully automated system used for training & managing real-time emergency response dealing with a variety of natural and man-made crisis according to a pre-designed contingency plan.
Major Emergency Management Suite

It is a centre for controlling emergencies in command centres and on-board offshore platforms. The centre introduces specific programmes where the aim is to equip personnel with formal training in command, control, communications and stress-related factors in the management of major emergencies. In addition, this program also provides initial emergency management training for personnel who are undertaking a training and competence for the role of an OSC.
Gantry Crane Simulator
- Quay Gantry Crane
- Rubber Tire Gantry Crane (R.T.G.)
- Offshore Crane

It consists of:

1- Trainee room
It contains a cabin, simulating the real gantry crane, enabling the trainee to experience real feelings and with normal size sight and engine sound effects.

2- Trainer room
The trainer room contains 3 computers with special specialties to enable the trainer to create natural training circumstances for the trainee.

The simulator provides training in different types of cranes such as Rubber Tire Gantry (RTG) and Offshore Crane with additional facilities for the training in bad weather conditions.
**Truck Simulator**

It consists of two rooms: the trainee room that has a real truck cabin and the trainer room in which the trainer chooses the truck and the method of training. There is a training program using the CBT for truck basic driving skills in different roads as well as bad weather conditions.

**The Helicopter Underwater Escape Training Simulator (METS)**

The Simulator is located within the pool area; it has the highest safety level during operation and simulates full range of different escape disciplines and scenarios required during the helicopter underwater escape training (HUET) in accordance with OPITO standard.
Helicopter Model on Helideck
MSI utilizes a real size helicopter model on a standard heli-deck similar to the one used on-board oil and gas offshore units for the training of courses assigned to the oil & gas industry in accordance with OPITO standards for BOSIET, HLO, HLO Assistant and Emergency Team Member training courses.
(B) Laboratories

Advanced Medical Lab
MSI encompass first aid and medical training lab which contains a wide variety of medical training aids in order to allow students to gain hands-on experience with the equipment used on-board ships and offshore units. Both the first aid and medical care courses give students the opportunity to carry out practical techniques and gain the theory to support these practical skills.

E-learning Classroom
Quite simply, e-learning is electronic learning, which typically means using a computer to deliver part, or all, of a course inside MSI premises. E-Learning: OPITO approved courses are delivered by MSI’s very skilled staff in partnership with our affiliated partner company “Atlas”. MSI provides the perfect blended learning environment, which offers all the offshore workers the chance to take their online training to the next level. E-Learning Lab consists of twelve computers ready to deliver the courses for twelve candidates requesting different courses at the same time.
**H2S Control Programmes Classroom (OPITO Approved)**

MSI encompasses premium “H2S” Lab in its ground floor, which contains the most up-to-date training aids and equipment used for H2S training. The H2S lab is used for the delivery of Basic H2S training course approved by OPITO and designed for personnel working in an environment which could become contaminated by H2S gas. Basic H2S training is to ensure that the delegate gains the required knowledge and understanding of the particular hazards and properties of H2S, and the appropriate emergency response actions to take should an H2S related incident arise.

**Firefighting Lab**

Maritime Safety Institute offers a number of STCW courses & OPITO-approved emergency response training courses in a realistic environment in the facilities located at the Academy’s campus, which are facilities that support the practical elements of these courses. Located at the lower site is the comprehensive firefighting ground with its firefighting units, allowing first aid firefighting, advanced firefighting techniques and self-rescue training from smoke filled compartments.
**Chemical Analysis Laboratory**
The Chemical Analysis laboratory undertakes physical and chemical analysis and tests for most of the environmental samples. The laboratory is also used as a tool for research in several fields, in addition to its role in assisting consultations training technical services.
In 1996, the laboratory started its work in co-operation with the Egyptian Environmental Affairs Agency (EEAA) by applying the “Fingerprinting Technique”. This was done by using the four different standard methods of the American Society for Testing Materials (ASTM). These standard methods compare the spilled oil samples with other oil samples from suspected sources.

**Oil Spill Combating Training Center**
The Oil Spill Combating Center (OSCC) is one of the major components of the disaster and crisis management systems. It includes almost all types of equipment used in combating oil spills and fulfills the requirements of OPRC IMO Model Courses. The center is located near the beach of Abu Qir bay in Alexandria, which facilitates practical exercises and handling of equipment taking into consideration the highest standards of human safety.
**Dynamic Positioning Labs**
We have a number of different Dynamic Positioning Labs fully approved by London Nautical Institute.

The labs are also approved by General Electric company as a major Engineering company to provide the Dynamic Positioning Maintenance Generic courses for the offshore engineers.

**Steam Laboratory**
Steam lab is considered the latest modern lab all-over the Middle East. The lab contains the advanced educational dual fuel steam station, gas turbine, two boiler models, water treatment chemicals, and steam turbine.

**Marine Engineering Laboratory**
Marine engineering lab is used for training the students in components, functions, maintenance, clearance measuring and troubleshooting of auxiliary machinery on-board vessel such as pumps, air compressors, heat exchangers, purifiers, thrust blocks, steering gear, valves and refrigeration units.
Helmsman Simulator Lab
It was installed in PTI after being presented from the Japanese Aid to AASTMT. The simulator was updated and edited by adding a program to the computer. This program aims to follow up the maneuvers with audio and visual techniques. This simulator helps the trainees to apply the helmsman orders in English and steer the survival crafts on ships.

Seamanship Lab
Seamanship Lab is a specialized lab which enables the trainees to recognize the different parts of the vessel as well as the equipment used on ships and rigging gear.
Hydraulic Systems Lab
Hydraulic Systems Lab provides training in hydraulic circuits using real movable components which enable the trainee to operate hydraulic circuits similar to the real systems. In addition, the trainee will be able to measure different variables and detect faults. PTI has units from the real parts which help the trainee to understand the function of making different valves and pumps using the computer aided training.

Refrigeration & Air Conditioning Lab
The trainee becomes acquainted with the components of Refrigeration and Air Conditioning systems by viewing real models. These models contain electrical and mechanical parts and connections which enable the trainee to find, test and repair faults. In addition, the trainee will get training on the basic skills (pipe cutting and welding, refrigerant charging and system maintenance). PTI also has a Reefer with control system for operation and hands on training.
Generators & Electric Equipment Lab
Generators and Electric Equipment Lab contains samples of generators, transformers, controlling systems for single and three phase motors, meters and fault detection. All these facilities provide the trainee with hands on training concerning maintenance and repair of various electrical machines.

Electrical Power Distribution (Low & High Voltage)
The High Voltage Lab provides a unique training opportunity for marine engineering who intended to work onboard high voltage ships. The lab has been designed to satisfy the HV requirements laid out in the Standards of Training, Certification and Watch keeping (STCW), Manila Amendments, Table III/1, III/2, and III/6.
**(C) Engineering Workshop**

**Metals Workshop**
Metal forming workshop is an industrial and production workshop. Cutting, welding, bending, turning, and milling processes are the major activities done in this important workshop.

**Marine Diesel Engine Workshop**
Marine Diesel Engines Workshop is used for training the students in components, functions, maintenance, clearance measuring and troubleshooting of the main engine and electric diesel generator on-board ship.

**Welding Workshop**
Welding workshop qualifies welders with practical training by enhancing electric arc welding skills and oxyacetylene welding, taking into consideration Safety and Occupational Health precautions.
(D) Swimming Pool Area

The MSI utilizes a pool facility for training in STCW proficiency in Personal Survival Techniques (PST) using totally enclosed motor propelled survival crafts (TEMPSC) on outrigger davits fitted on a purpose built steel structure and also a free fall lifeboat.

These craft are used for OPITO-approved training programmes for the offshore oil and gas industry as well as STCW courses.

A number of ‘in water’ skills are also taught before practical training is undertaken using a variety of life rafts survival equipment and personal floating devices.

A fast rescue boat located on the Pool Side Area for the training of proficiency in Fast Rescue Boat (FRB).
(E) Maritime Training & Sail Sports Center

We train the College of Maritime Transport and Technology students as follows:
- 1st semester: Maintaining and painting marine units
- 3rd semester: Duties of OoW on-board Merchant vessels
- 4th semester: Enhancing the students’ maneuvering and collision avoidance skills

Training the Arab Academy students and spreading the water sports culture among the undergraduates and the international school students.
(F) Meteorology Station

Meteorology is an observational science where meteorologists interpret observations from the land’s surface, oceans, and from the upper atmosphere to forecast weather. This is done using specialist computer programs designed to make both short and long-term predictions of weather and climate.

The predictions are used in the air transport industry, the defense industry, public utilities, and commercial organizations (such as retailers and event organizers) as well as for public interest through television, radio and the press. Meteorologists are also widely involved in research into understanding and predicting climate change and in understanding and improving models of weather prediction.
(G) Diving Center

Diving is now considered one of the main activities and jobs in the offshore and inshore industries. Offshore industry is one of the most important economic sources around the world. Diving is now also considered a main branch in several activities, including, but not limited to, civil engineering works, harbor works, tourism, etc. The programme has been offered in the College of Maritime Transport & Technology since September 1993. In addition to commercial diving, the programme offers tailored courses in diving and recreational diving.
(H) Training Vessel

- Aida IV was donated by Japanese government to the Egyptian government represented by ministry of transport and the Egyptian authority for maritime safety.
- Date of Keel Laying: 22nd Feb. 91
- Date of Launching: 20th Sep. 91
- Date of Delivery in Alex: 22nd Mar; 92 Mission
- Aida IV is a supply ship owned by Egyptian Government. Its keel was laid in 1991 and she started service in 1992 for supplying lighthouse in the red sea and training cadets.
SERVICES

Maritime Certificates Renewal Administration
Established in September 2014 in order to facilitate the registration procedures for masters, officers and engineers who are interested in the renewal of maritime certificates. Services are provided through the single-window principle to deal with the registration and issuing payment portfolio of different courses required for renewal, as well as providing banking service and delivery of certificates after issuance and adoption. MCRA responds to any queries from masters, officers and marine engineers with respect to registration for any marine courses, and distributes timetables for all marine courses and booking courses too.
MCRA offers a quality educational service for masters, officers and engineers through organizing and carrying out the renewal of the Marine certificates courses outside the headquarters of the academy.
Libraries
The Center serves the academic community in all branches of the Academy. The libraries are all connected by online interactive terminals to ensure easy access to the center in-house database. In order to offer a quality information service, the Center established an integrated information system that facilitates direct search through a computerized catalog and electronic databases.

Sport
There are two fully equipped Gymnasiums at Abu Qir Campus. They include saunas and massage facilities as well as all the standard equipment. Professional staff supervises the operation of the facilities and gives guidance to the trainees.
Medical Care
The academy established several clinics in its various locations to provide the best healthcare and medical services to its students, Faculty Members and staff to ensure smooth running of the educational process. These clinics cover all medical specializations, with best specialists, consultants, nursing staff, and using the latest diagnostic and therapeutic equipment.

Students Dorms
AAST&MT built 3 student hotels in Abu Qir campus. All the hotels provide 4-star accommodation along with world class restaurants. Single and double rooms are available. A separate hotel for girls was built in the campus as well. All the hotels are built to the highest standards, and are maintained by professional staff.
**Restaurants & Café**
AAST&MT provides food services for students, staff, and visitors on campuses. Restaurants and Cafeterias are designed to serve meals and snacks all week days, and provide catering services for special events. The resident students on campus are served 3 meals daily during their full-time stay at the Academy’s hotel. Our objective is to offer wide variety, great service and a quality dining experience.

**AAST&MT Transportation**
AAST&MT has a complete fleet of the latest models of busses. All the vehicles are fully air-conditioned and ready for long trips. Busses transport students between Abu Qir and Miami campuses on hourly schedules. Some lines also cover all Alexandria from Abu Qir till Agamy on the west side of Alex.
Banking Services
Banque du Caire is located inside Abu Qir campus to facilitate bank transactions for the students as well as the employees. It offers full banking services such as money transfers for foreign students.

Services Center
AAST&MT’s policy aims at providing its students with all services and means of comfort as well as raising the standard of performance of these services to be in line with the progress AAST& MT is witnessing at the moment. Hence, a center for providing the students, staff members and employees with any services they may need was established to provide various services.