

TEACHING PORTFOLIO

Professional Work Experience

Seafaring

- Navigation, shiphandling and watchkeeping duties on board Egyptian Navy Units (1973 - 1980)
- Navigation and watchkeeping duties on board training ship, 1980

Teaching and Training

- Acts as senior lecturer teaching the following subjects:
 - *Astronomical Navigation;*
 - *Coastal Navigation and Chart Work;*
 - *Magnetic and Gyroscopic (True) Compass;*
 - *Navigational Instruments;*
 - *Navigation Control;*
 - *Radar and Electronic Aids to Navigation; and*
 - *Marine Meteorology.*
- Acts as senior Instructor for the following courses:
 - *Radar Observer*
 - *Radar Simulator*
 - *Automatic radar Plotting Aids (ARPA)*
 - *Electronic Navigation Systems*
 - *Navigation Control*
 - *Shiphandling*
 - *Tailored courses including Vessel Traffic Management System (VTMS), Pilotage, Radar Plotting and Navigation Control for Saudi and Kuwaiti Coastguard Officers and Pilots from ARAMCO of Saudi Arabia.*
- Participates as marine chief examiner in oral as well as written examinations for certificates of competency for subjects of navigation, and electronic aids to navigation.
- Participates in Master Certificate examinations of Marine Simulators

Education and Training Managerial Skills

1. Education, Training and Research

- Establishment of the International Maritime Industry Forum to link the maritime education and training process with the maritime industry through regular meetings with concerned industrial bodies as well as acting representatives of shipping companies inside the Arab Academy's Campus.
- Adopting and leading the Arab Academy's Colleges of Maritime, Engineering, Management and International Transport and Logistics to be accredited and member of distinguished associations as follows:
 - *Accreditation Board for Engineering and Technology (ABET), USA;*
 - *Accreditation Renewal of Royal Institute of British Architects (RIBA-1 and RIBA-2) from 2010 to 2015;*
 - *Regular accreditations of the Supreme Council of Egyptian Universities for all Academy colleges' undergraduate studies and postgraduate studies;*
 - *Member of American Assembly of Collegiate of Schools of Business (AACSB);*
 - *Member of USA Council of Graduate Studies;*
 - *Member of Canadian Association for Graduate Studies; and*
 - *The Society for the Advancement of Management, SAM.*
- Establishing of College of International Transport and Logistics (2007) and series of MBA institutes, as follows: Information Technology Management Institute, Sports Management Institute, Finance and Investment Institute and Trade and Commodity Exchanges Institute.
- **Signing the Magna Charta Universitatum**, that was a leading step to join a great host of a worldwide community of more than 700 universities sharing the same ideals and principles – as proposed by the University of Bologna in 1986 - even though many of these universities are operating in different countries and various circumstances. That action has been taken by Dr. Farghaly towards this noble cause of cherishing the deepest values of university traditions; to enhance strong and rewarding cooperation bonds between North and South of the Mediterranean in the field of University liberal education and research; and to establish more effective and far-reaching intellectual, cultural, social, scientific and technological links among university institutes in the world at large. Dr. Farghaly's vision concentrated on highlighting the role of the Arab Academy as a successful example of academic freedom and university autonomy in the region on all academic, scientific, social and technological levels, and in recognition of the importance of education and educational cooperation in the development and strengthening of stable and peaceful societies;
- **Establishing the "Scientific Research and Projects Fund"** which finances projects of paramount importance to local, regional and Global needs. The autonomy that the Arab Academy enjoys also allows making investments according to institutional decisions. This paved the way for the installment of huge modern planetarium and research projects of high significance to the society.
- **Establishing of the Industrial development Center, IDC (2007)**, to link the academic researches to the industry and introduce solutions to industrial

problems, using students' projects and faculty staff researches. IDC comprises two main entities: Vocational and Technical Institute and Applied research center;

- **Establishing an advanced planetarium** to be used for astronomical studies in the College of Maritime Transport and Technology. Preparations were made to start producing the first 3D multimedia educational movies for the specializations in engineering, management and logistics.

Since 1994, I have been engaged in Studying, planning and supervising the establishment of the Integrated Simulators Complex (ISC) of the Arab Academy for Science, Technology and Maritime Transport. ISC has been established through joint co-operation between the USA Government (USAID) and the Egyptian Government (Ministry of Transport) with a cost of US\$ 33 million executed in two phases in addition to US\$ 32 million fund for future development during the period 2002 - 2003 (Total of US\$ 65 million). ISC comprises the following equipment:

Simulators

- 1- *Crisis Management Simulator*
Handling natural and man-made disasters such as:
 - a. *Explosion*
 - b. *Flood*
 - c. *Earthquakes*
 - d. *Terrorism*
 - e. *Oil Spill*
 - 2- *Full Mission Shiphandling Simulators*
 - a. *360° bridge*
 - b. *Tug Boat Simulator*
 - c. *Small Fast Ship Simulator (SFSS)*
 - d. *Integrated Bridge Simulator (IBS)*
 - e. *Vessel Traffic System (VTS)*
 - f. *Radar Cubicles*
 - 3- *Petrochemicals Simulators:*
 - a. *Liquefied Natural Gas (LNG)*
 - b. *Liquefied Petroleum Gas (LPG)*
 - c. *Very Large Crude Carrier (VLCC)*
 - d. *Crude Oil Carrier*
 - e. *Chemical Cargo Carrier*
 - 4- *Global Maritime Distress and Safety Simulator System (GMDSS)*
 - 5- *Marine Engine Simulator*
 - 6- *Vessel Traffic System (VTS).*
 - 7- *Crane Simulator*
 - 8- *Truck Simulator*
- River Simulator (Inland Water Transportation - Nile River)*

Laboratories

- 1- *Environmental Lab:*
 - a. *Chromatography Lab.*
 - b. *Spectroscopy Lab.*

- 2- *Industry Services Center labs:*
 - a. *Metrology lab*
 - b. *Mecatronics lab*
 - c. *Electronics lab*
 - d. *PC lab*

Workshops

- 1- *Automotive workshop*
- 2- *Metal cutting workshop*
- 3- *Marine diesel workshop*

Development & Maintenance Centers

- 1 - *Multimedia Centre (Audio/Video Production)*
- 2- *Maintenance and Technical Support Centre*
- 3- *Database Modeling Centre*

Since February 1996, ISC is fully functioning with all its research, project development and training assignments, being directed and supervised by myself. A large number of research projects by ISC staff are either conducted under my close supervision or jointly supervised by a research team including me; as well as other professors from specialized national universities and research institutes. The following are the assignments of ISC during the period from 1996 to 2007:

- ISC is responsible for all mandated simulator training of mariners and license certification in Egypt and several Arab and Foreign Countries to satisfy Egypt's MOT (Ministry of Transport) and the United Nation IMO (International Maritime Organization) requirements of seafarer. ISC trained and qualified numbers of seafarers as follows:
 - *Over 15000 trainees from various nationalities in 55 courses*
 - *2741 Bridge Officers*
 - *Over 6259 Emergency Communications Officers*
 - *Over 6000 Liquid Cargo Officers*
- ISC established an Oil Spill Management Center in Cairo at the Egyptian Environmental Affairs Agency
- ISC participated in the formation of the Egyptian National Contingency plan with EEAA and other related authorities. EEAA declared ISC the only authorized training institute in the region.
- ISC established a Crises Management Center in Cairo at Cabinet.
- ISC/AASTMT was awarded a 10 year contract to train all qualified candidates of the total public and private petroleum sectors of Egypt 891 trainees have participated in 64 courses in different levels.
- The ISC designed and established the River Nile Simulator within RTA's premises in Maadi, Cairo. The Academy also provided the simulator with all the technical facilities required and extended technical assistance to ensure its regular operation
- Capacity building activities were undertaken for (Egyptian River Transport Authority) ERTA's staff, involving both instructors in the River Nile facilities and technical staff on the daily operations of the simulator.

- ISC conducted the analysis of East Port Said maritime channel design using simulation to design channel width and turn basin to minimize dredging costs and assuring safe, efficient ship operation.
- ISC designed the North El SUKHNA Port and Provided Simulation and validation of the design of the multipurpose international port serving
- The Marine Simulators at the ISC performed also simulated studies and submitted a complete document stating points of strength and weaknesses in addition to detailed recommendations in all the following researches:
 - *Bulk Quay at Alexandria Port - Egypt*
 - *Petroleum Quay at El Dekhaila Harbor - Egypt*
 - *Al Fugayrah SBM Terminal - UAE*
 - *Damietta LPG - Terminal - Egypt*
 - *Damietta LNG - Terminal - Egypt*
 - *Damietta E-Methanex - Terminal - Egypt*
 - *Damietta EAgrium - Terminal -Egypt*