



Miral Michel Moneer Armanious

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About Me

A passionate graduate teaching assistant with a strong academic understanding of the design, construction, and maintenance of ships, offshore structures, and marine equipment, and proven support to department chairs, faculty members, and other professional staff members. Passionate about helping motivate students to learn and explore. Responsible, reliable, and always willing to go the extra mile. Experience in assisting students of various age groups and abilities and committed to creating a safe and engaging learning environment to foster their growth and development.

Education

Master's Degree in Marine Engineering (2023 – Present)

College of Engineering and Technology

Arab Academy for Science, Technology and Maritime Transport

Bachelor's Degree in Marine Engineering (2018 - 2023)

College of Engineering and Technology

Arab Academy for Science, Technology and Maritime Transport

Graduation project titled "Bio-gas Production to Improve the Heavy Fuel Performance by Reusing the Sewage on Ships" with an overall grade point average of **3.99 (Excellent with honours)**

The Red Sea STEM High School (2015 – 2018)

Mathematics Section

Graduated with an overall grade of **"A" - 91%** and a graduation project titled "Unicellular but Multifunctional" to solve Egypt's problem of eradicating public health issues by treating soil and water pollution.

Publications

- **Miral Armanious**, Akram Soliman, Ahmed S. Shehata "Assessment of Renewable Energy Supply for Shore Side Electricity in Green Ports", 2024, The International Maritime Transport & Logistics Conference MARLOG 13, 03 – 05 March 2024, Alexandria, Egypt.
- **Miral Armanious**, Ahmed Mehanna, Sherine Nagy, Ahmed S. Shehata "Development of a Proactive Maintenance Plan for Failure Identification to Ship Engine System", 2024, The International Maritime Transport & Logistics Conference MARLOG 13, 03 – 05 March 2024, Alexandria, Egypt.

- **Miral Armanious**, Omar M. Alkholy, Omar K. Mahdy, Kareem M. Yousef, Mohamed N. Abdalazeem, Omar M. Mowafy, Ahmed S. Shehata "Optimizing Marine Diesel Engine Maintenance: A Proactive Cost-Efficiency Strategy", 2024, The International Maritime Transport & Logistics Conference MARLOG 13, 03 – 05 March 2024, Alexandria, Egypt.
- **Miral Armanious**, Omar K. Mahdy, Omar M. Alkholy, Kareem M. Yousef, Yousef M. Shaban, Amir M. Abu Bakr, Ahmed S. Shehata "Greening Maritime Energy: A Sustainable Approach to Hydropower Generation Through Mathematical Modelling in Graving Dock Flooding", 2024, The International Maritime Transport & Logistics Conference MARLOG 13, 03 – 05 March 2024, Alexandria, Egypt.
- Amr Mohamed Elshouny, Ahmed Samir Shehata, Amr Ali, Yahia Elderany, **Miral Michel**, Wessam Hesham "Biogas Production to Improve Heavy Fuel Performance by Re-using the Sewage on Ships" TMREES23Gr, 27 to 29 November 2023, Athens - Greece, AIP Conference Proceedings.
- **Miral Michel**, Abba Eid "The Women in Maritime Programme in Egypt", 2022, Annual General Assembly, Student Session Proceedings of the International Association of Maritime Universities IAMU P. 5, 19 - 22 October 2022, Batumi, Georgia.
- **Miral M. Armanious**, Khaled Hazzaa, Abba E. Mohamed, and Ahmed A. Swidan "Arab Classification Society", 2021, Annual General Assembly, Student Session Proceedings of the International Association of Maritime Universities IAMU P. 18, 26 - 28 October 2021, Alexandria, Egypt.
- Ali Salah, Ahmed S. Shehata, **Miral Michel** "A Comparative Study of the Use of HHO and Methane Gas in Internal Combustion Engines to Reduce Fuel Consumption and Emission – Green Port Application", Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment (Under Review)
- Ahmed S. Shehata, **Miral Michel**, Khaled Elsherbiny, Ahmed Mehanna "Different Basin's Parameters Investigation of Gravitational Whirlpool Hydropower Turbine", Journal of Hydrodynamics (Under Review)
- Ahmed S. Shehata, **Miral Michel**, Wessam Hesham, Omar Eisa "Biogas Production to Improve Heavy Fuel Performance by Re-using the Sewage on Ships" (In Progress)
- **Miral Michel**, Ahmed Mehanna, Sherine Nagy, Ahmed S. Shehata "Development of a Proactive Maintenance Plan for Failure Identification to Ship Engine System" (In Progress)

Software Skills

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| • AutoCAD | • Rhinoceros |
| • Autoship | • Maxsurf |
| • ANSYS (AQWA & Fluent) | • Aspen Plus (HYSYS) |
| • MATLAB | • AutoPIPE |

Training

- Training Course on Geochemical Mapping and Environmental Geochemical Investigation for African English-Speaking Countries in Beijing, China in September 2024.
- The Fourth China-Arab States BDS Cooperation Forum at AASTMT, Alexandria, Egypt in October 2023.
- Petrojet Summer Training in July 2023.

- Petroleum Marine Services Company Summer Training in August 2022.
- Caterpillar Technicians for Africa Online Course in October 2021.
- Three Weeks Training on Floating Dock for maintenance of AIDA IV Ship.
- Engine room simulator (D P S 100 MC) one month training on watch-keeping duties in February 2020.
- Alexandria Shipyard Summer Training Program in Marine Engineering in July 2019.
- Shanghai Maritime University Summer School (African Program) in Shanghai, China in June 2019.

Conferences

- The 12th International Maritime and Logistics Conference MARLOG12 in Alexandria, Egypt in March 2023.
- International Association of Maritime Universities Annual General Assembly at Batumi State Maritime Academy in Batumi, Georgia in October 2022.
- International Association of Maritime Universities Annual General Assembly at Arab Academy for Science, Technology and Maritime Transport in Alexandria, Egypt in October 2021.

Awards

- 1st place among online participants in RoboBoat Competition in 2023.
- Best Weapons Prize in RoboPirates Competition in June 2023.
- 4th Place in Ship Design Competition in December 2022.
- Best Papers Award in TMREES 2023 Conference “Technologies and Materials for Renewable Energy, Environment and Sustainability” - European Academy for Sustainable Development.
- Best graduation project in the marine engineering departments in Egyptian universities competition organized by the Society of Marine Engineers and Ship Builders

Funded Projects

- Grant from **European Research Executive Agency (HORIZON Programme)** May 2023; a proposal about transforming higher education systems through transnational multi-sector links.
- **Academy of Scientific Research and Technology (ASRT) Fund of 73,000 LE (Graduation Projects Program):** Biogas Production to Improve the Heavy Fuel Performance by Reusing the Sewage onboard Ships.

Workshops

- Fiberglass Applications in Boat and Yacht Building workshop by Eng. Wael Nasr – Naval Architecture Expert in Fiberglass Boats and Yachts Design and Manufacture in October 2023.
- Cost Analysis and Control workshop by Eng. Moataz Mohamed – Offshore Platform Fabrication Projects Scheduling and Cost Control at Petrojet in October 2023.
- Diving and Subsea Inspection workshop by Eng. Ashraf Ali Rizk – Diving/ROV Subsea Safety Advisor/DRP at GUPCO in October 2023.
- Offshore Drilling and Well Control workshop by Eng. Khaled Waked - Engineering Lead at ADES Advanced Energy Systems, and Eng. Ahmed Hussein - HQ Offshore Engineering Manager at ADES Advanced Energy Systems in October 2023.
- RoxTech Egypt Sealing Solutions workshop in May 2023.
- Arab Women in Maritime – Biofouling Management workshop by the International Maritime Organization in Jeddah, Saudi Arabia in June 2023.
- Intelligent Ship Hull Inspection and NDT workshop by Eng. Samir El-Shahawy - Marine Surveyor at Polish Register of Shipping in May 2023.
- Digitalization in the Maritime and Offshore Industry workshop by Eng. Nasser Abd El-Hady - Fleet Manager at Gulf Marine Services in May 2023.
- How to Write Your Professional CV workshop by Capt. Amr Kataya - Marine Sector Director at Landmark Marine in March 2023.
- Risk Management in the Energy Supply Chain by Dr. Ghada El-Kady - Lecturer at College of International Transport and Logistics at AASTMT in March 2023.
- Future Shipyard workshop by Eng. Ahmed Samir - Services Manager at IMI Shipyard in March 2023.
- Marine Hydrogen workshop by Prof. Ibrahim Hassan - Head of Chemical and Petrochemical Engineering Department at AASTMT in November 2022.
- Marine Renewable Energy workshop by Prof. Mustafa Abd El-Jalil - Head or Research Energy Unit at AASTMT in November 2022.
- How to Build Boats workshop by Eng. Ahmed Tawfik - Work Boat Projects Manager at MAPSO in October 2022.
- Beyond Ship Repair Industry workshop by Eng. Ahmed Samir - Project & Operations Manager at ASRY in June 2022.

Teaching Experience

- Operation and Management of Floating Docks Course in collaboration with Zamil Offshore and Royal Saudi Naval Forces, 2024.
- Marine Diesel Engines III MM423, First Semester 2023/2024 - Present
- Underwater Technology MM570, First Semester 2023/2024 – Present

- Ship Resistance and Powering MM545, Second Semester 2023/2024 – Present
- Advanced Remotely Operated Underwater Vehicle and Autonomous Boat Technology Summer School in collaboration with Antwerp Maritime Academy in Belgium, September 2023
- Offshore Engineering MM575, Summer 2023 – Present
- Design and Construction of Offshore Structures MM571, Summer 2023 - Present
- Maintenance Planning for Marine Units MM526, Summer 2023

Technical Experience

- Third Engineer Certificate of Competency in October 2023.
- Engine Cadet onboard AMMANAH - Namma Shipping Lines for 2 months in November 2020.
- Engine Cadet onboard AIDA IV for 4 months in October 2020.

Activities

- Organizer at Marine and Offshore Engineering Department Summer Camp in August 2024.
- Organizer at RoboPirates Competition by the Marine and Offshore Engineering Department in May 2024.
- Organizer at Marine and Offshore Engineering Department Summer Camp in August 2023.
- Organizer at RoboPirates Competition by the Marine and Offshore Engineering Department in June 2023.
- Head of Scouts Committee in the College of Engineering and Technology Student Union in October 2022.
- Organizer at Marine and Offshore Career Fair in February 2023.
- Organizer at Ship Design Competition in December 2022.
- Volunteer at the Marine and Offshore Engineering Department to do paper and administrative work.
- Volunteer at AASTMT College of Maritime Transport & Technology Student Union.

Memberships

- IMarEST: Chair of Student Section
- SNAME: Chair of Student Section
- MTS: Chair of Student Section
- RINA: Chair of Student Section
- Arab Institute of Navigation

Languages

- **Arabic:** Native Language
- **English:** Excellent
- **French:** Very Good

