



Mahmoud Abdelnaser Saadeldin

Address: Khalil Hamada, Alexandria, Egypt

Email: mahmoud.abdelnasser@alexu.edu.eg

Phone: (+20) 1098612611

LinkedIn: [linkedin.com/in/mahmoud-abd-el-nasser-msc-b049b5151](https://www.linkedin.com/in/mahmoud-abd-el-nasser-msc-b049b5151)

ABOUT ME

Experienced marine engineer specializing in sustainable practices, utilizing renewable energy and alternative fuels to reduce marine emissions. Proficient in SolidWorks, ANSYS Fluent, and EES for optimizing energy storage systems. Possess a robust academic foundation in ship design, fluid mechanics, and internal combustion engines. Effective communicator with a proactive problem-solving approach. Committed to advancing sustainability and ensuring seamless engineering project execution.

EDUCATION

[01/02/2021 – 06/08/2023]

Master's degree in Naval Architecture & Marine Engineering

Alexandria University, Egypt

GPA: 3.958

Thesis: Comparative Studies for Reducing Marine Emissions by Using Alternative Fuels.

[15/09/2014 – 01/07/2018]

B.Sc. in Naval Architecture & Marine Engineering

Alexandria University, Egypt

Grade: Excellent with Degree of Honor (86.47%), Ranked 2nd /51 in the class.

Thesis: Nile container Barge ship design. Grade: Excellent.

WORK EXPERIENCE

Teaching Assistant

[01/04/2021 – Current]

Alexandria University, Egypt (full-time)

- Demonstrated proficiency in marking assignments and tests, maintaining a fair and consistent approach to evaluation.
- Organized and facilitated tutorials, labs, and review sessions for courses including Marine Power Plants, Naval Architecture, Marine Propulsion, Marine Drawing, Ship Construction, Ship Design, and Theory of Machines.
- Actively contributed to curriculum development, infusing a research-based and scholarly approach to enhance student learning experiences.
- Engaged in ongoing supervision of practical work, providing valuable guidance on skills, methods, and techniques for optimal knowledge transfer.
- Assisted in the preparation of schedules and effectively communicated with students to ensure smooth coordination of activities.

[01/09/2021 – Current]

Arab Academy for Science, Technology & Maritime Transport, Egypt (part-time)

- Meticulously marked assignments and tests, providing constructive feedback to students to support their academic growth and achievement.
- Successfully prepared theoretical classes and lab experiments, offering students a well-rounded educational experience.
- Played a vital role in preparing students for final exams through meticulous planning and comprehensive review sessions, contributing to their success.
- Teaching various courses such as Marine Drawing - Machine Assembly - Thermodynamics - Air Refrigeration Cycle - Steam Power Plant

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[14/08/2015 – 09/09/2015] **Shipyard site engineer intern**

Alexandria Shipyard, Egypt

- I gained practical experience in shipbuilding and maintenance, as well as contributing to on-site engineering tasks, monitoring ship construction processes, and collaborating with the shipyard team to ensure the successful execution of projects.

PUBLICATIONS

- [January 2023] **Effects of Direct Water Injection on the Nitrogen Oxide Emission Characteristics of Marine Diesel Engines**
Reference: Journal of Marine Science and Technology
Saadeldin, Mahmoud Abdelnaser; Elgohary, M. M.; Abdelnaby, Maged; and Shouman, Mohamed R. (2023) "Effects of Direct Water Injection on the Nitrogen Oxide Emission Characteristics of Marine Diesel Engines," Journal of Marine Science and Technology: Vol. 31: Iss. 2, Article 6.
DOI: 10.51400/2709-6998.2692.
Available at: <https://jmstt.ntou.edu.tw/journal/vol31/iss2/6>
- [September 2023] **Biofuels and Electrofuels as Alternative Green Fuels for Marine Applications: A Review**
Reference: Marine Technology Society Journal (MTSJ)
Saadeldin, M.A.N., Elgohary, M.M., Abdelnaby, M., and Shouman, M.R., 2023. Biofuels and Electrofuels as Alternative Green Fuels for Marine Applications: A Review. Marine Technology Society Journal, 57(3), pp.51-68.
<https://doi.org/10.4031/mts.57.3.2>
- [December 2023] **COMPARATIVE STUDY OF ALTERNATIVE FUELS FOR REDUCING MARINE EMISSIONS: ENVIRONMENTAL, TECHNICAL, AND ECONOMIC ASSESSMENT**
Reference: Conference Paper
Nasser, Mahmoud Abdel and Shouman, Mohamed R. and Ghoneim, Nourhan I., A Comparative Study of Alternative Fuels for Reducing Marine Emissions: Environmental, Technical, and Economic Assessment (December 5, 2023). **Available at** SSRN: <https://ssrn.com/abstract=4655134> or <http://dx.doi.org/10.2139/ssrn.4655134> .
- [September 2024] **Advanced Simulation and Environmental Impact Assessment of Combustion in Maritime Energy System**
Reference: Marine Technology Society Journal (MTSJ)
Saadeldin, M.A., Elgohary, M.M., Abdelnaby, M.M. and Shouman, M.R., 2024. Advanced Simulation and Environmental Impact Assessment of Combustion in Maritime Energy Systems. Marine Technology Society Journal, 58(3), pp.36-55.
<https://doi.org/10.4031/MTSJ.58.3.3>
- [June 2024] **Environmental and economic benefits of using alternative fuel in maritime applications.**
Reference: Naval Engineers Journal **Accepted with minor revision**
Mahmoud A. Saadeldin, Mohamed M. Elgohary, Maged M. Abdelnaby, and Mohamed R. Shouman (2023) "A COMPARATIVE ASSESSMENT OF ALTERNATIVE FUELS FOR REDUCING EMISSIONS IN MARITIME APPLICATIONS". International Journal of Maritime Engineering.

COURSE

- [02/2023 – 03/2023] Renewable Energy: Fundamentals and Job Opportunities
<https://www.coursera.org/learn/renewable-energy-fundamentals>
- Develop foundational understanding of clean energy market segments (sustainability, green building, solar, wind, and nanotechnology).
 - Explain the fundamental principles of economic, social and environmental sustainability.
 - Identify renewable energy career opportunities and corresponding educational pathways.
- [06/2023 – 07/2023] **Energy Saving at Sea. Online course Course by Udemy**
<https://www.coursera.org/learn/renewable-energy-fundamentals>
- Seafarers interested to understand how international regulations to address emissions can impact their daily tasks.
 - Seafarers interested in practical measures to reduce fuel consumption and increase energy efficiency on board.
 - Personnel in shipping companies and ports interested to learn more on practical measures for ship energy efficiency and how to support their implementation
- [02/2024 – 03/2024] **Programming for Everybody (Getting Started with Python)** University of Michigan
<https://www.coursera.org/account/accomplishments/verify/JQSTQH746Y6S>
- Describe the basics of the Python programming language.
 - Use variables to store, retrieve and calculate information.
 - Utilize core programming tools such as functions and loops.

LANGUAGE SKILLS

Arabic: Native

English: Second language. Completed undergraduate and graduate degree programs at Alexandria University, where all classes were delivered in English.

SOFTWARE

- *Proficient in Modeling software such as AUTOCAD, SolidWorks, MATLAB.*
- *Expert in ship analysis software such as MAX-SURF,*
- *Intermediate level in fluid dynamic software such as Ansys ICE Fluent, and Ansys FLUENT.*
- *Expert in Structure analysis Software such as ANSYS static structure, and FEM.*

SKILLS

- Proficient in both written and verbal communication, ensuring the seamless exchange of clear and concise information with the company, managerial staff, and engineering team.
- *Adept at cultivating robust relationships with team members and stakeholders, fostering an environment conducive to productive collaboration and effective problem-solving.*
- *Demonstrates excellent time management abilities, adept at prioritizing tasks and meeting deadlines without compromising attention to detail.*
- Proficient in the creation of project documents, encompassing letters, Technical Queries (TQ), Change Orders, etc., with a commitment to adhering to industry standards and guidelines.

HOBBIES AND INTERESTS

- Reading
- Traveling
- Writing