

CURRICULUM VITAE

Ahmed Khalifa Aly Mehanna, Ph. D, M. Sc.

***Vice Dean of Student Affairs, Former Head of International Research Projects Dept.
Associate Professor, Marine Engineering Dept., Faculty of Engineering & Technology,
Arab Academy for Science, Technology & Maritime Transport (AASTMT)***

Personal Data:

Name Ahmed Khalifa Aly Mehanna
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Objective:

I feel I would be able to make a strong contribution in any challenging and interesting research field that could be utilized and developed according to my academic background experience and skills either research or administrative in addition to my experience in the international grants and relations. For more information follow this link: https://www.aast.edu/cv.php?disp_unit=&ser=64425

Research Interests:

Marine Environment field, Ships and Offshore Structures, Risk Assessment, Marine Hydrodynamics, Fluid Mechanics, Ship Design, Shipbuilding, Ship Propulsion and Renewable Energy.

Education Degrees:

- **Ph. D. in Marine Engineering & Naval Architecture, Port-Said University, Port Said, Egypt, 2015.** *Thesis Title: "Modelling of Oil Spill Damage Assessment in Marine Environment".*
- **M. Sc. in Marine Engineering, Arab Academy for Science, Technology and Maritime Transport (AASTMT), Alexandria, Egypt, 2009. (Excellent with Honor).**
Thesis Title: "Update Development of Design Aspects of Bulk Carriers".
- **B. Sc. in Marine Engineering, (Marine and Offshore Major), AASTMT, Alexandria, Egypt, February 2005. (Excellent with Honor).**
Graduation Project Title: "Air Conditioning System for Offshore Rigs"; (Excellent with 97%).
- **Third Engineer Officer Certificate, July 2005. According to Standards of Training, Certification and Watch keeping "STCW/95.**

Positions Held & Experiences :

- **I am working in Arab Academy for Science and Technology and Maritime Transport (AASTMT), Alexandria, Egypt from 2007 until present; Here's my career path at AASTMT: Part Time Graduate Teaching Assistant** from February 2006 to August 2007 in Department of Mechanical & Marine Engineering, **Full Time Graduate Teaching Assistant** from September 2007 to September 2010, **Full Time Assistant Lecturer** from October 2010 to July 2015, **Assistant Professor** from August 2015 to Oct 2019 and **Associate Professor** from Nov 2019 until present in Department of Mechanical & Marine Engineering. During my career, I taught the following courses:

Undergraduate Courses:

- | | | |
|-----------------------------------|-------------------------|------------------------------|
| - Marine Hydrodynamics | - Thermo Fluids | - Ship Design |
| - Electric Ship Design | - Hydraulics | - Shipyard Technology |
| - Fluid Mechanics | - Maritime Law | - Ship Resistance & Powering |
| - Naval Arch. & Ship Construction | - Marine Diesel Engines | - Ship Propulsion Systems |

Postgraduate Courses:

- Advanced Marine Hydrodynamics I - Marine Propulsion Systems - Advanced Structural Analysis

- **Participate in many TEMPUS & Erasmus+ Project (EU Funds):**

- Clean Energy and Research in Environmental Studies (**CERES**): 517401-TEMPUS-2011- ES.
- Academic-Industry Partnership towards Development of Trainers and Educators for Technicians in Egypt (**AIP**): 544014-TEMPUS-2013-ES.
- Sustainable Ways to Increase higher education students' equal access to learning environments (**SWING**): 543716-TEMPUS-2013-UK.
- Smart Control Systems for Energy Management: New Master Degree (**SEM-SEM**): **Erasmus+ Project funded by EU, Ref. No. 561703-EPP-1-2015-1-UK-EPPKA2-CBHE-JP.**
- Integrating Blended Entrepreneurial and Manufacturing Technology Competency into Socioeconomic Development in Egypt (**BEMT**): **Erasmus+ Project funded by EU, Ref. No. 561929-EPP-1-2015-1-ES-EPPKA2-CBHE-JP.**
- Blended Vocational-Engineering-Industry Shared Learning Environment for Stream of Socially- and Technically-Competent Technicians and Engineers (**VET-ENG**): **Erasmus+ Project funded by EU, Ref. No. 574114-EPP-1-2016-1-FI-EPPKA2-CBHE-JP.**
- Progression of Accessibility Centres in higher Education for Students with disabilities in North Africa (**PACES**): **Erasmus+ Project funded by EU, Ref. No. 585901-EPP-1-2017-1-UK-EPPKA2-CBHE-JP.**
- Innovative Lifelong e-Learning for Professional Engineers (**E-ProfEng**): **Erasmus+ Project funded by EU, Ref. No. 586391-EPP-1-2017-1-SE-EPPKA2-CBHE-JP.**

- **Participate annually in Organizing & Judging Committees in Remotely Operated Vehicle Competition at Egypt, (MATE ROV Regional Competition), from 2015 to 2021.**

- **Attending summer training in PETROJET Company, 2004.**

- **Cadet Engineer, 2002.**

Finished my practical seagoing term of 6 months on AIDA IV Training Ship, gained different skills of watch keeping, marine engineering, marine diesel, fire prevention and detection, marine safety on a marine facility with hands-on practical approach have been introduced and enforced all along the different trips in the Red Sea and the Mediterranean Sea (toward Lebanon). This qualifies me for the Third Engineer Officer Certificate of Competency Exam.

Research & Publications:

- **Mehanna, Ahmed Khalifa** and Hegazy, Elsayed Hussein. “Proposed Design Formulae for Bulk Carriers”. Port Said Research Engineering Journal (PSERJ), Faculty of Engineering, Suez Canal University, Egypt, Volume 13, No. 2, September 2009, Pages 232–238. Port Said, Suez Canal University, Egypt. ISSN: 1110-6603.
- **Mehanna, Ahmed K**, Mohamed Y. Omar, Amr A. Hassan, Eslam A. Turki, E.H. Hegazy & Heba Elkilani. “Modelling of Oil Spill Impacts on Shoreline in Egypt”, Developments in Maritime Transportation and Exploitation of Sea Resources - **Proceedings of IMAM 2013**, 15th International Congress of the International Maritime Association of the Mediterranean, A Coruna, Spain, 14-17 October 2013, Volume 2, 2014, Pages 825-833. Taylor & Francis Group, London, ISBN: 978-113800162-6.
- **Mehanna, Ahmed K**, Mohamed Y. Omar, Amr A. Hassan, Eslam A. Turki, E.H. Hegazy & Heba Elkilani. “Modelling of Oil Spill Impacts on Shoreline in Egypt”, Developments in Maritime Transportation and Exploitation of Sea Resources - IMAM 2013, 15th International Congress of the International Maritime Association of the Mediterranean, **Book Chapter**, Volume 2, 15 May 2014, Pages 825-834. CRC Press - © 2014 Taylor & Francis Group, London, ISBN 978-1-138-00124-4.
- Hegazy, E. H., **Ahmed Kh Mehanna**, Mohamed Y. Omar, Heba Elkilani, and Amr A. Hassan. "Coral Reefs Damage Assessment due to Oil Pollution in Egyptian Water." **Proceeding** in Applied Mechanics and Materials Journal from **ICSEEE 2013**, 2nd International Conference on Sustainable Energy and Environmental Engineering, Shenzhen, China, 28-29 December 2013, Volume 522-524 (Feb 2014), Pages 725-728. ISSN: 1660-9336. ISBN: 978-303835022-4.
[DOI: 10.4028/www.scientific.net/AMM.522-524.725](https://doi.org/10.4028/www.scientific.net/AMM.522-524.725)
- **Mehanna, Ahmed Kh**, Hegazy, E. H., Mohamed Y. Omar, Heba Elkilani, and Amr A. Hassan. “Modelling of Coral Reefs Damage Assessment in Egypt”. International Marine and Offshore Engineering Conference and Exhibition (**IMOC 2014**), 3-4 of September 2014, Al Jubail Industrial City, Kingdom of Saudi Arabia. Copyright © 2014 Arab Academy for Science, Technology and Maritime Transport.
- A. Radwan, A. Elbatran, **A. Mehanna**, M. Shehadeh. “Experimental Study on Using the Aluminum Sacrificial Anode as a Cathodic Protection for Marine Structures”. 19th International Conference on Marine and Naval Engineering (**ICMNE 2017**), 13-14 of January 2017, 19 (1) Part VI, Pages: 712-717, Zurich, Switzerland.
- Nagi Abdussamie, Ashraf Zaghwan, Mohamed Daboos, Ismail Elferjani, **Ahmed Mehanna**, Wenming Su. “Operational Risk Assessment OF Offshore Transport Barges”. **Journal of Ocean Engineering**. Vol. 156, Issue No. 10, 15 May 2018, Pages 333-346. © 2018 Elsevier Ltd. ISSN: 0029-8018. **Impact Factor: 3.068**. [DOI: https://doi.org/10.1016/j.oceaneng.2018.03.006](https://doi.org/10.1016/j.oceaneng.2018.03.006)

- M. F. Shehadeh, A. H. Elbatran, **Ahmed Mehanna**, J. A. Steel & R. L. Reuben. "Evaluation of Acoustic Emission Source Location in Long Steel Pipes for Continuous and Semi-continuous Sources". **Journal of Nondestructive Evaluation**, Vol. 38, Issue No. 2, 2019, Article 40, Pages 1-15. © 2019 Springer Nature Switzerland AG. ISSN: 0195-9298 (Print) 1573-4862 (Online). **Impact factor: 2.192**. DOI: <https://doi.org/10.1007/s10921-019-0577-6>

- Lynn Clouder, Jacqueline Cawston, Katherine Wimpenny, **Ahmed Khalifa Aly Mehanna**, Youcef Hdouch, Iman Raissouni & Karima Selmaoui. "The role of assistive technology in renegotiating the inclusion of students with disabilities in higher education in North Africa". **Journal of Studies in Higher Education**, Vol. 44, Issue No. 8, August 2019, Pages 1344-1357. Taylor & Francis Group. ISSN: 0307-5079 (Print) 1470-174X (Online). **Impact Factor: 3**. DOI: <https://doi.org/10.1080/03075079.2018.1437721>

- This article is result from SWING Project that was funded through European Union Framework - Tempus Programme: (GRANT Number: 543716-TEMPUS-1-2013-1-UK-TEMPUS-JPGR).*

- Ali I. Shehata, A.E. Kabeel, Mohamed M. Khairat Dawood, Mohamed M. Abo Elazm, Abdalla M. Abdalla, **Ahmed Mehanna**. "Achievement of Humidification and Dehumidification Desalination System by utilizing a Hot water sprayer and Ultrasound Waves Techniques". **Journal of Energy Conversion and Management**, Volume 201, Article 112142, December 2019. © 2019 Elsevier Ltd. ISSN: 0196-8904. **Impact Factor: 8.2**. DOI: doi.org/10.1016/j.enconman.2019.112142

- Ali I. Shehata, A.E. Kabeel, Mohamed M. Khairat Dawood, Aly M.Elharidi, A.Abd_Elsalam, Khaled Ramzy, **Ahmed Mehanna**. "Enhancement of the productivity for single solar still with ultrasonic humidifier combined with evacuated solar collector: An experimental study". **Journal of Energy Conversion and Management**, Volume 208, Article 112592, March 2020. © 2020 Elsevier Ltd. ISSN: 0196-8904. **Impact Factor: 8.2**. DOI: doi.org/10.1016/j.enconman.2020.112592

- Loay Mustafa Aboud, Aly Hassan Elbatran, **Ahmed Mehanna**, Mohamed Fahmy Shehadeh. "Experimental Study on the Effect of Impingement Angles and Velocities on Erosion-Corrosion Behavior of API 5L-X42 Carbon Steel in Eroded Flow Medium". **Journal of International Review of Mechanical Engineering (IREME)**, Vol. 14, Issue No. 8, August 2020, Pages 493-503. Copyright © 2020 Praise Worthy Prize. ISSN: 1970-8734. **Impact Factor: 1.7**. DOI: doi.org/10.15866/ireme.v14i8.19293

- Ahmed M Ramadan, Mohamed Fahmy Shehadeh, Ali Shahata, **Ahmed Mehanna**. "Filter Cake Formation on Deep Vertical Well Under High Pressure and Temperature Conditions Computational Fluid Dynamics Modeling and Simulations". **International Journal of Applied Engineering Research**, Vol. 16, Issue No. 3, April 2021, Pages 192-199. Copyright © Research India Publications. ISSN: 0973-4562.

- Ahmed M. Ellethy, Ahmed S. Shehata, Ali I. Shehata, **Ahmed Mehanna**. “Modelling and Assessment of Accidental Gas Release from Damaged Subsea Pipelines”. **International Journal of Environmental Science and Development - IJESD**, Vol. 12, Issue No. 6, June 2021, Pages 162-168. Copyright © IJESD 2021. ISSN: 2010-0264.

[DOI: doi.org/10.18178/ijesd.2021.12.6.1335](https://doi.org/10.18178/ijesd.2021.12.6.1335)

Research Indicators

<https://www.scopus.com/authid/detail.uri?authorId=56045557300>

<https://scholar.google.fr/citations?hl=en&pli=1&user=mEms7IIAAAAJ>

https://www.researchgate.net/profile/Ahmed_Mehanna4

Short Bio

Dr. Ahmed Mehanna is an Associate Professor of Marine Engineering Department, College of Engineering and Technology, Arab Academy for Science, Technology and Maritime Transport (AASTMT). He is currently the Vice Dean of Student Affairs at AASTMT Alexandria Campus. He was the Former Head of the International Research Projects Department at AASTMT. Dr. Mehanna has received his Ph. D. in Marine Engineering from Port-Said University, Port Said, Egypt, 2015. He have an academic backgrounds in marine structures, hydrodynamics, ship design, ship propulsion systems, ship and offshore structures, risk assessment, fluid mechanics and shipbuilding technologies in addition to a strong background in the marine environment field. He have also a field experience in design of a small floating unit. Moreover, He have a strong wide experience and interests in the field of education program quality and accreditation. He have an extensive experience in the international grants and relations, He is working in one of the very successful research teams at AASTMT, We finished seven international projects that were funded from the EU under Tempus and Erasmus+ Programs cooperating with European/Arabian/Egyptian consortiums, while we are still working in two other funded projects under Erasmus+ Program. All of these projects are addressed to the capacity building of higher education to develop the postgraduate education, research activities, and social activities with stakeholders in cooperating with different universities, authorities and NGOs' from the EU, North Africa and Egypt. Through these international projects, He had participate in developed many labs in AASTMT and create two Master programs (M. Eng. & M. Sc.) in addition to his participation in many Entrepreneurship Summits in Egypt. Dr. Mehanna was the Chairman of the Organizing Committee of the 2nd International Conference for Persons with disAbilities: The role of entrepreneurship, aCcessibility cEntres and assistive technologieS towards full inclusion (IC-PACES) which was held on March 2021.

Workshops & Courses:

- Attending Training Course on Wind Power Technology at UCTM Sofia, Bulgaria, 2015.
- Training on Accessibility Centres for Disable Students at EUROTraining, Greece, 2014.
- Attending Course for Assistive Technology for Disable Students at Alicante University, 2014.
- Attending Training course on Solar and Biomass Energy at Staffordshire, University, UK, 2013.
- Certificates for Marine Course in 2005, issued from the "AASTMT", according to STCW/95.
 - Advanced Course in Fire Prevention & Fire Fighting.
 - Medical First Aid.
 - Prevention and Combating of Marine Pollution.
 - Personal Safety and Social Responsibilities.
 - Personal Survival Techniques and Search and Rescue.

Awards:

- Awards from AASTMT for Distinguished Scientific Publications in International Journals with High Impact Factor in 2018 and 2019 respectively.
- First prize scholarship with full tuition fees paid from, as first in my class, AASTMT 2001 to 2005.
- Dean's List of First Highest GPA, Award Certificate of Admiration for this Achievement.
- First Prize for the Best Graduate Achieving of "Mechanical & Marine Engineering Department, AASTMT, 2004/2005.
- First Place Prize in Practical Seagoing Training M/V "AIDA IV", AASTMT, 2002.
- First place prize in fourth and final theoretical cadet term in Marine Engineering, Marine Diesel Engines, and Naval Architecture courses, AASTMT, 2002.

Highlights Of Qualifications:

Personnel Skills:

- Excellent communication skills, ability to work under pressure, able to learn new tasks quickly, good presentation skills, ability to work individually and as a co-operative team member and leadership skills.

Language Skills:

- Arabic mother tongue.
- English Very Good Spoken, Reading and Written.

Computer Skills:

- ICDL, AutoCAD, HVAC Load Explorer, and MATHLAB.

Activities:

- Professional member in Egyptian Engineering Society
- Hobbies: Travailing, Reading, Swimming and playing foot-ball.