

# CURRICULUM VITEA

**Ahmed Abdelwahab Wahby Swidan** | FIEAust | FIMarEST | CMarEng | Ph.D.

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## Personal Information:

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DOB	18 <sup>th</sup> January 1977
NATIONALITY	Egypt
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## SUMMARY:

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Academic, Mentor and Maritime Consultant with Ph.D in Maritime Engineering from the Australian Maritime College (AMC), University of Tasmania. Served as a marine engineer aboard naval vessels and progressed to senior roles including Marine Chief Engineer, Technical Superintendent and Owners' Representative with full responsibility of ships' operations and life asset management.

Since 2021 has served as vice-dean of maritime research in AASTMT and Professor of maritime engineering and ship construction. Internationally, participated in academic leadership roles, including program development, course convenor, trainer and senior researcher in both the Australian Maritime College, University of Tasmania and the University of New South Wales (UNSW). In UNSW, we (one of the three founders) established the new Naval Architecture Program.

Have also led and supervised international research, development, and consultancy projects across Australia, the Pacific, the United States, the MENA region, and Africa. Supervised and examined many Ph.D and MSc. students at internationally recognised universities including University of Tasmania, University of Newcastle, Hamburg University, Auckland University, Alexandria University and the Arab Academy for Science, Technology and Maritime Transport.

Demonstrated expertise as a marine chief engineer, technical superintendent, and maritime consultant, in managing complex maritime projects including establishing new ship repairing yards, working boat designs, and planning major ship conversions and repairs, with proven track-record capability in managing maritime assets, supervising new ship constructions, performing design review.

A certified Marine Chief Engineer (STCW III/2), Chartered Maritime Engineer from the Institute of Marine Engineering Science and Technology (IMarEST), Accredited Marine Incidents and Accidents Underwriter for economic courts, Visiting Professor at world-class universities, Fellow of IMarEST, and Engineers Australia (FIEAust), and Committee Member of RINA.

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## SKILLS AND EXPERIENCE:

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### Main Technical Discipline:

- **Academic Experience**     **First Lecturer and Vice Dean** of Maritime Research in AASTMT | Now  
  
Senior Academic Level C and Founder of Educational and Training programs in AMC, UTAS and UNSW | 2012 - present  
  
Lead supervisor of Maritime R & D Projects | 2018 - present
- **Professional Experience**     **Maritime Consultant** (Chartered Marine Engineer)  
  
Authorised Underwriter | Ships' incident and causality investigation  
  
Representative of the Ship's Owner | New building and Repairs  
  
Superintendent | Ship's Manager  
  
Marine Chief Engineer  
  
Marine Safety and Risk Assessment and Management

### Qualifications:

**Ph.D** in Maritime Engineering | Australian Maritime College, University of Tasmania | 2012 - 2016

MSc. in Maritime Engineering | Arab Academy for Science, Technology and Maritime Transport | 2010 - 2012

**Marine Chief Engineer** Unlimited (STCW III/2) | Egyptian Maritime Safety Authority | 2009 – Expiry 2028

BSc. In Mechanical Engineering | Military Technical College | 2000

### Affiliations:

**Consultant Engineer** | Egyptian Engineers Syndicate | 2025 - now

**Marine Expert & Underwriter** | Egyptian Economic Courts | 2021

**Professional Fellow** | IMarEST - UK | 2018 - now

**Professional Fellow** | Institute of Engineers Australia | 2017 - now

**Committee Member** | RINA - UK | 2017 - now

**Chartered Marine Engineer** | IMarEST - UK | 2017 - now

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**CAREER:**

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<b>Year</b>	<b>Company Name</b>	<b>Position</b>	<b>Location</b>
2022 - Now	AASTMT	First Lecturer and Vice Dean	Egypt
2023 - Now	UNSW	Visiting A/Professor	Australia
2018-2023	UNSW	Level C - Program Lead	Australia
2012 - 2018	AMC, UTAS	Lecturer, R&D, and Trainer	Australia
2016 - 2022	AASTMT	Second Lecturer	Egypt
2010 - 2016	AASTMT	Lecturer and Trainer	Egypt
2009 - 2010	Al-Kahera Company for Marine Transportation	Marine Chief Engineer and Technical Superintendent	Egypt/ Saudi Arabia
2007 - 2009	Egyptian Navy	Ship's Project Manager	Egypt
2004 - 2007	Egyptian Navy	Marine Chief Engineer	Egypt
2000 - 2004	Egyptian Navy	3 <sup>rd</sup> and 2 <sup>nd</sup> Marine Engineer	Egypt

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**PROJECT REFERENCES/ ADDITIONAL NOTES:**

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1. Maritime consultant for the Australian Maritime Safety Authority (AMSA) in developing the new national harmonized code in Australia, from 2018-2019.
  2. Contributed the design of large high-speed RO-PAX ferries at INCAT Tasmania and Revolution Design, where full-scale sea-trials, experimental model tests, and CFD simulations were conducted.
  3. Obtained Walter Atkinson award for the best written and presented paper in Australia by the Royal Institute of Naval Architecture (RINA) in 2019.
  4. Maritime Consultant for the Australian Maritime College Search in developing new maritime courses, e.g. Dock Master, Ship Conversions, Technical Superintendency, Yacht Survey, Hull and Machinery Survey, and conducted a range of Maritime Feasibility and Research Studies, Australia.
  5. Supervised and reviewed various new shipbuilding projects from small to medium size Yachts and Working boats.
  6. Managed a range of drydock works and ship surveillance incidents and accidents' investigations
  7. Managed a project for the development of four high-speed patrol boats for the Egyptian Navy from tender up to construction under Egyptian Navy standards and specific requirements.

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## List of Academic HDR Supervision and Examination:

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### Ph.D. Degree

- An investigation into human–ship interior design interaction as an approach to eliminate human-based maritime accidents through elevating human performance | AASTMT | 2024 - now
- An Investigation of the Complexity of Non-Native English-Speaking Seafarers' Employment & Retention Issues in Light of Global Shortage of Ship Officers | AASTMT | 2022 - 2025
- Wave Induced Hydrodynamics on Surface-Piercing Marine Structure | UNSW | 2019 - 2022

### MSc. Degree

- Ports' Challenges and Readiness in the Era of Autonomous Ships and AI | AASTMT | 2025 - Now
- Investigation of Maneuvering Characteristics of Ships with a high Block Coefficient | Hamburg University and Alexandria University | 2023 - 2025
- Development for a coupled approach to drive the relation between the slamming and ship strength for high-speed craft | Hamburg University and Alexandria University | 2023 - 2024
- Enhancing Maritime Asset Management Value by Transforming Condition Monitoring Expert Knowledge into Machine Learning Models | UTAS -AMC | 2017-2019

### Ph.D Examination

- Connor Pearson | Design of high-speed hull structures and analysis of failure mechanisms under dynamic ocean loads | University of Auckland | 2025
- Satinder Singh Viridi | Volatile Organic Compound emission from marine oil loading operations | Newcastle University | 2025
- Xavier Ling | Free Surface Effects on the Hydrodynamics of an Underwater Vehicle | UTAS -AMC | 2023

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## List of Patents and Publications:

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### Patents

- Ministry of Higher Education and Scientific Research – 30655 | 2022
- PCT/EG2016/000034, [http://hdl.handle.net/1959.4/unsworks\\_56857](http://hdl.handle.net/1959.4/unsworks_56857) | 2017

### Publications

1. Shama AM, Swidan A, Young J. The influence of cylinder geometry on the characteristics of the generated surface wave and drag forces: A numerical investigation. Flow Measurement and Instrumentation. 2026:103341.
2. Ericksen MJ, Joiner KF, Lawson NJ, Truslove A, Warren G, Zhao J, et al. Novel Hybrid

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- Aquatic–Aerial Vehicle to Survey in High Sea States: Initial Flow Dynamics on Dive and Breach. *Journal of Marine Science and Engineering*. 2025;13(7):1283.
3. Heikal S, Abdelbarry A, Khatab M, Swidan A, Mansi M. Examining Employment and Retention Challenges of Arab Non-Native English-Speaking Seafarers in the International Maritime Industry: A Quantitative Analysis. 2024.
  4. Abdelbarry A, Heikal S, Swidan A, Khattab M, Alghaffari S. Non-native English-speaking seafarers—an investigation into communicational challenges and consequent on high retention rates. *MARITIME RESEARCH AND TECHNOLOGY JOURNAL* Учредители: Arab Academy for Science, Technology, and Maritime Transport (AASTMT). 2024;3(2):131.
  5. Swidan AA, Ashour A. Data Based Proposal for a Hydrodynamic Ship Model Testing Facility in the Arab Region. *International Maritime Transport and Logistic Journal*. 2023;12:186–97.
  6. Joiner KF, Swidan AA. Conceptualising a Hybrid Flying and Diving Craft. *Journal of Marine Science and Engineering*. 2023;11(8):1541.
  7. Swidan AAW, Thomas G. A Passive Flow Separation Approach for Reducing Slamming Loads on Large Catamarans—Experimental Investigation. *Maritime Research and Technology*. 2022;1(1):017–24.
  8. Swidan A, Joiner K, Jewson E, Carroll N, Champ D, Shpak G, editors. A novel flying and diving wing craft for electronics intelligence—a conceptual design. 2022 International Telecommunications Conference (ITC-Egypt); 2022: IEEE.
  9. Shama AM, Swidan A, Young J, Ranmuthugala D, editors. Promoting Submarine Stealth by Reducing Submarine Mast Hydrodynamics. *IMC International Maritime Conference*; 2022.
  10. Shama A, Swidan A, Young J. Vortex formation in the wake behind various surface-piercing cylinder configurations. *Bulletin of the American Physical Society*. 2022;67.
  11. Ghalwash GA, El-Bawab MS, Swidan AA, Rowihil MS, M Ibrahim A, BA Farag Y. A proposed protocol for GMP-BoK implementation gap analysis—case study at AASTMT. *Maritime Research and Technology*. 2022;1(1):25–35.
  12. Swidan A, Harper C, Von-Limont S, Smith W. RE-Engineering Arab World (RAW)—A study for Promoting Maritime Engineering in Schools. *Marlog 2021*. 2021.
  13. Shama AM, Swidan A, Young J, editors. Multiphase Flow Simulation of Subsea Pipeline Leakage Detected by Acoustic Emission Method. *Fluids Engineering Division Summer Meeting*; 2021: American Society of Mechanical Engineers.
  14. Joiner K, Swidan A, Jewson E, Carroll N, Champ D, Shpak G. Submersible Seaplanes as the Path to Hybrid Flying and Diving Craft. *Proceedings of the ISUDEF*. 2021.
  15. Hunter B, Swidan AA, Joiner K, Hazenberg G, editors. Accurate Prediction of Landing Loads for a New Design of a Wing-In-Ground Maritime Surveillance Drone—CFD Investigation. 2021 31st International Conference on Computer Theory and Applications (ICCTA); 2021: IEEE.
  16. Armanious MM, Hazzaa K, Mohamed AE, Swidan AA. Towards Establishment of a new Arab Classification Society - Market Analysis. *Marlog 2021*. 2021.
  17. Shama A, Swidan A, Young J, Ranmuthugala D, editors. Wave induced plume and hydrodynamic loads over vertical circular cylinder piercing surface—numerical investigation.

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22nd Australasian Fluid Mechanics Conference AFMC2020; 2020: The University of Queensland.

18. Reay Atkinson S, Skinner C, Joiner K, Caldwell N, Swidan A. Important trends and junctures in warship design-Redux. *The NAVY-Journal of the Navy League of Australia*. 2020;82(3):13.
19. Atkinson SR, Skinner CJ, Joiner KF, Caldwell NH, Swidan A. Important trends and junctures in warship design. *Marine systems & ocean technology*. 2020;15(2):135–50.
20. Wotherspoon J, Swidan A, Smith W, Osman A, editors. Model submarine sail geometry optimisation-A numerical and experimental investigation. RINA, Royal Institution of Naval Architects-IMC 2019: Pacific International Maritime Conference; 2019.
21. Von-Limont S, Swidan A, Osman A, Smith W, editors. Design and build of a device to measure resistance and power of model submarines in the submarines in schools technology challenge. Pacific International Maritime Conference, IMC2019; Start: 2019-10-08; End: 2019-10-10; Sydney, Australia; 2019.
22. Swidan AA, editor A novel concept in reducing wetdeck slamming loads-CFD investigation. ISOPE International Ocean and Polar Engineering Conference; 2019: ISOPE.
23. Swidan AA. Slamming loads of ships-experimental approaches. SETE (2019: Canberra): Engineers Australia Melbourne; 2019. p. 159–69.
24. Swidan A, Christophersen D, Bauer T. A New Centrebow Design to enhance the performance of High-Speed Catamarans in Rough Seas. RINA. 2019.
25. Swidan A, editor Mitigation of Slamming of Catamarans in Waves. International Maritime Exposition Pacific Conference 2019; 2019.
26. Harper C, Swidan A, Smith W, editors. Subs in Schools: Engineering a Reliable Depth-Control System and Pressure-Hull. Pacific International Maritime Conference, IMC2019; 2019.
27. Buckland S, Swidan A, Smith W, editors. Development of an Acoustic Testing System for the Subs in Schools Program. Pacific International Maritime Conference, IMC2019; 2019.
28. Swidan A, Thomas G, Penesis I, Ranmuthugala D, Amin W, Allen T, et al. Wetdeck slamming loads on a developed catamaran hullform—experimental investigation. *Ships and Offshore Structures*. 2017;12(5):653–61.
29. Swidan AAW. Catamaran wetdeck slamming: a numerical and experimental investigation: University of Tasmania; 2016.
30. Swidan A, Thomas G, Ranmuthugala D, Amin W, Penesis I, Allen T, et al. Experimental drop test investigation into wetdeck slamming loads on a generic catamaran hullform. *Ocean Engineering*. 2016;117:143–53.
31. Swidan A, Thomas G, Ranmuthugala D, Penesis I, Amin W, Allen T, et al., editors. Prediction of slamming loads on catamaran wetdeck using CFD. SNAME International Conference on Fast Sea Transportation; 2015: SNAME.
32. Swidan A, Thomas G, Ranmuthugala D, Penesis I, Amin W, editors. Numerical investigation of water slamming loads on wave-piercing catamaran hull model. 10th Symposium on High Speed Marine Vessels (HSMV) Naples, Italy 2014; 2014.
33. Ahmed SA, Giles TA, Ranmuthugala D, Amin W, Walid, “Numerical Investigation of Water Slamming Loads on Wave Piercing Catamaran Hull Model”, X HSMV–NAPLES October.

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2014.

34. Swidan A, Amin W, Ranmuthugala S, Thomas G, Penesis I. Numerical prediction of symmetric water impact loads on wedge shaped hull form using CFD. 2013.
35. Hegazy EH, Kotb M, Naguib A, Swidan A. PRELIMINARY ESTIMATION OF THE PRINCIPAL DIMENSIONS OF HIGH SPEED RO-PAX ALUMINIUM CATAMARAN FERRIES BASED ON UPDATED STATISTICS. Port-Said Engineering Research Journal. 2012;16(2):46–53.
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## Training

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<b>TOT</b>	Developed and delivered maritime technical training courses for senior levels in Australia, Pacific, Malaysia, India, Egypt, and Africa.
	Participated in the development and Implementation of the Global Maritime Professional – Body of Knowledge (GMP-BOK)
<b>Training Certificates</b>	Change Management and Organizational Development   AASTMT   2025
	IMO Model Course 3.12: Assessment, Examination and Certification of Seafarers - ASECT   AASTMT   2025
	IMO Model Course 6.09: Train the Instructor to Design, Teach and Assess Maritime Training Programs   AASTMT   2025
	IMO Model Course 6.10: Train the Simulator Trainer and Assessor   AASTMT   2025
	Leadership Skills in Education   AASTMT   2024
	ISM Lead Auditor   AASTMT   2023
	Intellectual Property Rights   AASTMT   2023
	Global Maritime Professional – Body of Knowledge   AASTMT   2023
	Project Management   University of New South Wales (UNSW)   2022
	Foundation of University Learning and Teaching – FULT   UNSW   2018
	Leadership and Negotiation Skills   Australian Maritime College – University of Tasmania   2018
	Crowd Management Training and Safety Training   Australian Maritime College – AMSA approved   2017
	Certificate of Proficiency in Survival Craft (CPSC)   Australian Maritime College – AMSA approved   2017
	Personal Survival Techniques   Australian Maritime College – AMSA approved   2017

Graduate Certificate in Research | University of Tasmania | 2016  
Advanced Presentation Skills | Australian Maritime College | 2016  
Virtual Towing Tank Simulation | SIEMENS - STAR-CCM+ | 2014  
Advanced Firefighting & Damage Control | Booz Allen Hamilton | 2009  
Safety Officer | Booz Allen Hamilton | 2008  
Basic Firefighting & Damage Control | Booz Allen Hamilton | 2006  
Marine Chief Engineer | All training Certificates, as per STCW 1987 as amended, valid until 2028.

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## **Skills, Languages and Websites**

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**Computer Skills** M365 | Star-CCM+ Simulation | ANSYS – CFX | Rhino | Auto-CAD | Maxsurf | Ship Constructor | MatLab | LabView | Microsoft Project

**Languages:** English – Excellent up to native  
Arabic - Native

**Websites** AASTMT: [https://aast.edu/en/maritime/list\\_staff.php?unit\\_id=519](https://aast.edu/en/maritime/list_staff.php?unit_id=519)  
LinkedIn: <https://www.linkedin.com/in/dr-ahmedswidan/>  
UNSW: <https://www.unsw.edu.au/staff/ahmed-swidan>  
Google Scholar:  
[https://scholar.google.at/citations?hl=en&user=TjeJoQQAAAAJ&view\\_op=list\\_works](https://scholar.google.at/citations?hl=en&user=TjeJoQQAAAAJ&view_op=list_works)

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