CURRICULUM VITAE

I. PERSONAL INFORMATION

Name *: Ahmed Gomaa Mohamed Gomaa*

Home Address *: street 53 from Gamal Abdel-Nasser Street, side Bshr, Alexandria, Egypt.*

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: Agomaa@AAST.edu

Date & Place of Birth *: 24/2/1984*

Nationality *: Egyptian*

Current Position *: head of Service Workshops department*

II. EDUCATION

- *PhD degree in marine engineering and Naval Architecture from Alexandria University in 2020 "Performance analysis of supercritical ORC utilizing marine diesel engine waste heat recovery'.*
- *MSc degree in marine engineering and Naval Architecture from Alexandria University in 2012 "Theoretical and Parametric Study of Marine Steam Turbine Power Plant"*
- *BSc of engineering in 2006 from the Naval Architecture & Marine Engineering Department at Alexandria University, Faculty of Engineering.*
- ***Additional certificates***

- *Basic fire fighting for the building.*
- *Design of firefighting systems according to (NFPA)*
- *Occupational safety and health administration (OSHA) General Industry*

- *Crisis management*
- *Preparing managers of executive departments and administrative leaders*

III. LANGUAGES

Arabic: Mother tongue.
English: Very Good (Written & Spoken).

IV. EXPERIENCE

Current Work

- Working at the Arab academy for science and technology and maritime transport.

  From June 2007 until now
- As an instructor at the marine engineering lab.

  From June 2007 to December 2009
- As a responsible instructor in the steam power plant lab.

  From January 2010 to November 2012
- As responsible and instructor of the steam power plant lab and responsible for the health safety in the Industrial Service Complex and instructor at Technical Vocational Institute.

  From November 2012 to August 2014
- As an instructor at Technical Vocational Institute and head of the service workshop unit in the Industrial Service Complex.

  From September 2014 until now

Head of the service workshop department industrial service complex

From November 2016 until now

Teaching

Teaching the following courses in the faculty of engineering and technology:

Design and analysis of steam power plant.

Operation and maintenance of steam power plant.

Steam plant engineering

Teaching the following courses in maritime college:

Marine engineering

Applications of steam plant in the marine field.

Diesel

***Teaching the following courses at Technical Vocational Institute**:*

Pumps, Air Compressors and Valves

Lubrication and Bearing

OSHA General Industry.

OSHA Construction

Health and Safety and Risk Assessment in Engineering

Engineering Thermodynamic.

Engineering design

Computer Aid Design and Manufacturing

Industrial service

Engineering science

Mechanical Principles

<u>Research and development (R&D)</u>

- *Design and implement Gas turbine.*
- *HHO generator by two methods (electrolysis-microwave oven) to increase the efficiency of Internal Combustion Engine (ICE)*
- *Water desalination by compressed vapor methods (design vacuum tank and select compressor, vacuum pump, heat pump, heat exchanger, and heater). Then start experiments and modification.*
- *Applied Lean Manufacturing in shipbuilding.*
- ***Graduation projects supervision**:*

  1- Decrease the fuel consumption on board the ship by (waste heat recovery –using renewable energy).

  2- Remotely operated solar power river boat.

  3- Applications of ORC on shipboard

  4- Design and implementation of hydrofoiler.

  5- Design and model of autonomous trimaran vessel.

  6- Green hydrogen ship.

  7- Design and implement submarines.

8- *Solar PV Based Station for Electric Vehicle*

9- *Hydrogen-Powered Fuel Cell Electric Vehicle*

10- *Design solar power Port-Fouad ferry.*

- ***Reviewer***

  MTS journal

Published research

- *Parametric study of marine steam turbine plants.*
- *Risk management in shipyard.*
- *Performance analysis of supercritical orc utilizing marine diesel engine waste heat recovery.*
- *Green hydrogen Toward Sustainable Marine Fuel*

Published Book

- *Occupational safety and health for General industry according to OSHA standards.*

  ** First edition 2014*

  ** Second edition 2018*

  ** Third edition 2021*

Tenders

Welding machines
Gas analyzer
CNC Lathe machine
Automotive diagnose device
A participant in setting the technical specifications of service workshop for Shareqa AAST branch
A participant in setting the technical specifications of service workshop for Aswan AAST branch

Workshops and Lab. Development

Steam lab.
Welding workshop in Industrial Service Complex
Welding workshop in V-TEC BASHYER EL KHIER
CNC turning and milling LAB.

Events organization

Arab Academy Forum for Technical Education as head of the exhibition committee
Shipbuilding workshop in Port Said
First Egypt Skill computations as judgment in turning skill.

Competitions
Roboboat 2022 SOBEK team 3rd place online
Roboboat 2023 HAPI team 2nd place online

V. SKILLS
Computer Skills:

- *Microsoft Office Package*
- *AutoCAD program "2D" & "3D"*
- *Engineering Equation Solver (EES).*
- *Maxsurfe.*
- *Graph software.*
- *Elite Fire.*
- *2D Energy.*
- *Hyses.*
- *CoolPack*

Others skills:
- *Communication skills.*
- *Motivated person.*
- *Ability to work under pressure.*
- *Ability to work in team consists of different members.*
- *Ability to traveling.*