

CURRICULUM VITAE

Dr. ALY MOHAMED ELHARIDI

Assistant Professor of Mechanical Engineering

Department of Mechanical Engineering
College of Engineering & Technology
Arab Academy for Science, Technology and Maritime
Transport
College of Engineering – Building A – Office 223
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CAREER OBJECTIVE:

To contribute my potential, experience and personal skills in such a way that leads to enhance the students' learning environment.

HIGHLIGHTS OF QUALIFICATIONS

- PhD in Mechanical Engineering with extensive experience over 10 years in teaching, research, supervising graduates, project management and administrative roles
- Published number of research papers in international journals and conferences.
- Supervised many Ph.D. dissertations, M.Sc. Theses, and B.Sc. graduation projects.
- Very good experience in developing curricula, labs providing short courses and training for companies, organizations and individuals, in addition to Conferences.
- Very good experience in organizing conferences, workshops and training events.
- Very good experience in Mechanical Work (Heating, Ventilation and Air-Conditioning (HVAC), Energy management and Energy Consulting, Design and Site Execution.
- Extensive experience in Hourly Based Cooling and Heating Load Calculation software, like HVAC Load Explorer, HAP,.. etc
- Extensive experience in Building Simulation software, like IES-VE, Design Builder, ..etc
- Member of ASME, ASHRAE, and IBPSA.

PERSONAL DETAILS:

Name	: Aly Mohamed Aly Elharidi
Date of birth	: 8 th March.1986.
Nationality	: Egyptian
Place of birth	: Alexandria- Egypt
Marital Status	: Married
Mobility	: International Driving License
Health	: Trouble-Free, Sports-Active.
e-mail Address	: alyelharidi@aast.edu , aly_el-haridi@hotmail.com
Residential Address	: 20A Tout Ankh Amoun Street - Smouha – Building C - Flat 1003C
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City	: Alexandria
Country	: Egypt
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AREAS OF EXPERTISE AND INTERESTS:

Teaching:

- Thermodynamics
- Heat Transfer
- Refrigeration and Air Conditioning
- Renewable Energy
- Energy Management
- Research Methodology
- Gas dynamics
- Aerospace

Research:

Mainly experimental and theoretical investigation in the following fields:

- Energy and Buildings
- Absorption Cooling System
- Solar Desalination
- HVAC & R [Heating, Ventilation and Air conditioning & Refrigeration]
- Renewable Energy Technologies and Energy Management and Audit.
- Water Desalination.

University Administrative Roles:

- Mechanical Engineering Department Postgraduate Student Advisor [2008-2013].
- Mechanical Engineering Department Undergraduate Student Advisor [2008-2019].
- Mechanical and Marine Engineering Department Timetable Officer [2015-2019].
- Course Coordinator for Thermodynamics Courses [Thermodynamics, heat transfer, refrigeration...etc].

MAIN CURRENT PROFESSIONAL OCUPATION:

1. Head of International Relations Dept.		
	Place of Work:	International Relations and Cooperation Center - Arab Academy for Science, Technology and Maritime Transport. [AAS&MT] – http://www.aast.edu
	Address:	Abu Kier Campus - Alexandria, Egypt - P.O.Box: 1029.
	Tel.:	+20-35622366 - +20-35622388 Ext.:1112
2. Assistant Professor at Department of Mechanical Engineering		
	Place of Work:	Department of Mechanical Engineering - College of Engineering and Technology - Arab Academy for Science, Technology and Maritime Transport. [AAS&MT] – http://www.aast.edu
	Address:	Abu Kier Campus - Alexandria, Egypt - P.O.Box: 1029.
	Tel.:	+20-35622366 - +20-35622388 Ext.:1112

EDUCATION:

Degree	University
PhD. , December 2017	Department of Mechanical & Aerospace Engineering, Energy Systems Research Unit [ESRU], University of Strathclyde , Glasgow , United Kingdom
<ul style="list-style-type: none">SpecializationThesis Title	Energy and Buildings Methodology to investigate the energy and indoor environmental performance of typical Egyptian offices
M. Sc. , Jan. 2011	Department of Mechanical Engineering, Collage of Engineering, Arab Academy for Science, Technology & Maritime Transport, Alexandria, Egypt.
<ul style="list-style-type: none">SpecializationThesis Title	Energy saving Theoretical and Case Study Analysis of the Energy Saving in Commercial Buildings.
B. Sc. , June 2008	Dept. of Marine Eng.-College of Engineering and Technology - Arab Academy for Science and Technology. POBox: 1029 Alexandria, Egypt.
<ul style="list-style-type: none">Project TitleProject GradeGeneral Appreciation	Graduation project: Enhancing LNG production rate Excellent Excellent with Distinction – GPA 3.94

LANGUAGE PROFFICIENCY:

Language	Reading	Writing	Conversation
Arabic	Mother Tongue	Mother Tongue	Mother Tongue
English	Excellent	Excellent	Fluent
French	Fair	Fair	Fair

WORKING WITH THE FOLLOWING COMPUTER PACKAGES:

- Integrated Environmental Solution – Virtual Environment [IES-VE].
- Design Builder Software
- EnergyPlus
- HVAC Load Explorer: Heating, Ventilation, Air Conditioning Load Explorer.
- Cool Pack: A Collection of Simulation Tools for Refrigeration.
- Proficient in Computer Aided Drafting [AutoCAD-2D & 3D].
- Matlab.

EXPERIENCE:

September 2019 – Till present	Head of International Relations Dept. – International Relations and Cooperation Center – Arab Academy for science, Technology & Maritime Transport.
January 2018 – Till present	Course Coordinator - Thermodynamics / Refrigeration and air-conditioning Field - Mechanical Engineering Dept. – College of Engineering & Technology, AAST&MT, Alexandria- Egypt.
January 2017 – Till present	Assistant Professor: Mechanical Engineering Dept. – College of Engineering & Technology, AAST&MT, Alexandria- Egypt.
September 2014 – December 2016	Researcher & Assistant: Mechanical and Aerospace Engineering – Starthclyde University – Energy Systems Research Unit (ESRU) – Glasgow - UK.
January 2011 – August 2014	Teaching Assistant: Mechanical Engineering Dept. – College of Engineering & Technology, AAST&MT, Alexandria- Egypt.
September 2008 – November 2010	Graduated Teaching Assistant: Mechanical Engineering Dept. – College of Engineering & Technology, AAST&MT, Alexandria- Egypt
September 2008 – August 2014	Part Time Lecturer: American University – Alexandria Branch {Centre for Adult and Continuing Education (CACE)} Faculty of Engineering- Alexandria University-Alex. Egypt.
September 2003 – June 2008	Training <ul style="list-style-type: none">• Abo-Dhabi Lexus workshop (AL FUTTAIM MOTORS).• Arab Petroleum Pipelines CO. (SUMED).• Halliburton Egypt.• Peugeot Egypt.• Egyptian Petrochemical CO. (EPC).• Unic-air.• FUGRO Abo-Dhabi (UAE).

TEACHING EXPERIENCE:

Master Degree Courses – College of Engineering & Technology, AAST&MT, Alexandria- Egypt.

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| - Research methods for mechanical Engineers | ME 711 |
| - Advanced Thermodynamics, Heat & Mass Transfer | ME 731 |
| - Advanced Refrigeration and Air Conditioning. | ME 732 |
| - Renewable Energy | ME 723 |
| - Research Methodology | ME 711 |
| - Energy Resources and Energy Management | ME 725 |

Mechanical and Marine Engineering Dept. – College of Engineering & Technology, AAST&MT, Alexandria- Egypt.

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| - Renewable Energy | ME 524 |
| - Energy Management | ME 424 |
| - Thermal Power Plant Engineering | ME 520 |
| - Air conditioning Units, Control and BMS. | ME 536 |
| - Air conditioning System Design and Selection | ME 538 |
| - Refrigeration and Air Conditioning | ME 434 |
| - Heat Transfer | ME 431 |
| - Thermodynamics II | ME 333 |
| - Thermodynamics I | ME 232 |
| - Thermodynamics | ME 231 |
| - Mechanical Engineering Drawing Using AutoCAD | ME 252 |

Part Time Lecturer:

American University of Cairo – Alexandria Branch {Centre for Adult and Continuing Education (CACE)}

- Computer Aided Drafting. 2D & 3D

MEMBERSHIP OF PROFESSIONAL SOCIETIES:

- ASHRAE (American Society of Heating Refrigeration & Air conditioning Engineers) (USA). [8361201] ASHRAE Pyramids Chapter.
- ASME (American Society of Mechanical Engineers) Student Chapter.
- IMechE (Institution of Mechanical Engineers)
- IPBSA (International Building Performance Simulation Association) IBPSA Egypt Chapter.

AREAS OF INTEREST:

Refrigeration and Air Conditioning.	Heat Transfer	Absorption Cooling
IAQ: Indoor Air Quality	Thermofluids	Energy Efficiency in Buildings
Most Renewable Energy Resources	Energy Management	Computer Software.
Water Desalination.	LNG	Research Methods
AutoCAD 2D and 3D	CFD	Environmental Science
Thermal Power Plant	Aerospace	

SPORTS AND HOBBIES:

- Swimming, Squash playing & Music.	-Computer Software and Hardware.
- Repairing household appliances.	- Scout Member / Rotoract Member.

RESEARCH & SUPERVISIONS:

a) Completed Supervised Theses:

MSc	Michel William	Assessing the Energy Saving Potential for Egyptian Hospital Building	Completed January 2019 (AASTMT)
Ph.D	Mohamed Ibrahim Abdel Aziz	Ship Energy Efficiency Management Using Dynamic Modeling	Completed January 2020 (AASTMT)

b) Currently under supervision:

Ph.D.	Michel William	Reduced order modeling for building energy prediction	Started 2019 (University of Oviedo)
Ph.D.	Ahmed Essam Tourab	Novel Configuration of a hybrid sustainable water desalination system (RO-HDH) Powered by solar energy, Modeling and exergy analysis	Started 2018 (University of Oviedo)
MSc	Ola Abd Elhakim	Energy Saving Potential for Grocery facilities	Started 2017 (AASTMT)
MSc	Mohanad Mohamed	Nearly Zero Energy Egyptian Building	Started 2019 (AASTMT)
MSc	Mohamed Abd Elmgid	Using Passive Cooling System For Egyptian Commercial Buildings	Started 2019 (AASTMT)
MSc	Ahmed Mohamed	Study Experimentally and numerically the performance of Modified Vapor Compression cycle	Started 2019 (AASTMT)

PUBLICATIONS:

[Conferences Publications]

M.M. Abo Elazm, A.F. Elsafty & A.M. Elharidi “A case study of the effect of insulation materials on HVAC energy consumption” World Renewable Energy Congress XI, WREN ABU DHABI – United Arab Emirates 25-30 September, 2010
Elsafty, A. F., C. Joumaa, MM Abo Elazm, and A. M. Elharidi . "Case study analysis for building envelop and its effect on environment." Energy Procedia 36 (2013): 958-966.
Aly M. Elharidi , Paul G. Tuohy, & Mohamed A. Teamah “Facing the Growing Problem of the Electric Power Consumption in Egyptian Residential Building Using Building Performance Simulation Program” Building Simulation Cairo 2013 - Towards Sustainable & Green Built Environment, Cairo, June 23rd - 24 th - 2013
Aly M. Elharidi , Paul G. Tuohy, Mohamed A. Teamah, & Ahmed A. Hanafy CALIBRATION OF NUMERICAL SIMULATIONS MODELING OF NONRESIDENTIAL BUILDING IN HOT HUMID CLIMATE REGION” 14th Building nSimulation Conference 2015(BS2015) December 7-9,2015 at HICC, Hyderabad, India.
Aly Elharidi , & Paul Tuohy “Capturing Uncertainty in Operation, Behaviour and Weather in Building Performance Assessment: An Egyptian Case Study” Proceedings of 9th Windsor Conference: Making Comfort Relevant Cumberland Lodge, Windsor, UK, 7-10 April 2016. Network for Comfort and Energy Use in Buildings, http://nceub.org.uk
Mohamed Abdel Aziz, Aly M. Elharidi , Ahmed F. Elsafty & Amman A. Aly “energy study for passenger ship accommodation design modeling” International Conference on Innovation Engineering Technology (ICIET-20), 28-29 January 2020, Cairo, Egypt.
William, Micheal A., Aly M. El-Haridi , Ahmed A. Hanafy, and Abd El-Hamid A. El-Sayed. "Assessing the Energy Efficiency improvement for hospitals in Egypt using building simulation modeling." BSC19_ID14_EE BSCAIRO 2019 - Simulation for a Sustainable Built Environment 28th – 30th November, Cairo, Egypt.
Mohanad M. Ibrahim, Ahmed A. Hanafy, Aly M. El-Haridi, and Ahmed S. Shehata "Effect of PV shadow on cooling load and energy consumption of zone toward achieving NZEB." 2021 11th International Conference on Future Environment and Energy (ICFEE 2021), January 28-30, 2021 Virtual Conference.
[Journal Publications]
Aly M. Elharidi , Paul G. Tuohy, Mohamed A. Teamah, & Ahmed A. Hanafy “Energy And Indoor Environmental Performance Of Typical Egyptian Offices: Survey, Baseline Model And Uncertainties” Energy and Buildings available online 11 November 2016-135(2017) 1-18.
Aly M. Elharidi , Paul G. Tuohy, Mohamed & A. Teamah, “Energy And Indoor Environmental Performance Of Typical Egyptian Offices: PARAMETER ANALYSIS AND FUTURE POLICY” Energy and Buildings available online 10 October 2017- 158 (2018) 431–452.
Micheal A. William, Aly M. Elharidi , Ahmed A. Hanafy, & Abd El-Hamid A. El-Sayed “Assessing the Energy Efficiency improvement for hospitals in Egypt using building simulation modelling” Engineering Research Journal Faculty of Engineering Minoufiya University acceptance 13 march 2019 – ISSN 1110-1180.

William, Micheal A., Aly M. El-Haridi , Ahmed A. Hanafy, and Abd El-Hamid A. El-Sayed. "Assessing the Energy Efficiency improvement for hospitals in Egypt using building simulation modeling." ERJ. Engineering Research Journal 42, no. 1 (2019): 21-34.
Shehata, Ali I., A. E. Kabeel, Mohamed M. Khairat Dawood, Aly M. Elharidi , A. Abd_Elsalam, Khaled Ramzy, and Ahmed Mehanna. "Enhancement of the productivity for single solar still with ultrasonic humidifier combined with evacuated solar collector: An experimental study." Energy Conversion and Management 208 (2020): 112592.
Ahmed E. Tourab , Ana María Blanco-Marigorta, Aly M. Elharidi and María José Suárez-López "A Novel Humidification Technique Used in Water Desalination Systems Based on the Humidification–Dehumidification Process: Experimentally and Theoretically" Water 2020, 12, 2264; DOI:10.3390/w12082264
Mohamed M. Khairat Dawood, Ali I. Shehata, Abd elnaby Kabeel, Aly M. Elharidi , Ahmed Abdelsalam Taha, Seif Bayoumi, and Abdalla M. Abdalla "Increasing the Freshwater Productivity of a Solar Still Loaded with CuO Nanofluids using Vibration Motion and Cover Cooling Techniques" International journal of Energy Research; (2020) DOI: 10.1002/er.6440.

LABORATORIES

Development, Procurement, Supervision and Preparing Lab Materials for the following Labs for the College of Engineering and Technology, Arab Academy For Science, Technology and Maritime transport

Abu kier campus:

Refrigeration and air condition lab	Thermodynamics Lab
Fluids and hydraulics lab	Mechatronics lab
Automotive lab	Renewable energy lab

Development, Procurement, Supervision and Preparing Lab Materials for the following Labs Warden Institute of Railways

Refrigeration and air condition lab	Thermodynamics Lab
Renewable energy lab	

PARTICIPATED IN MANY TEMPUS & ERASMUS+ PROJECT (EU FUNDS):

- Clean Energy and Research in Environmental Studies (CERES): 517401-TEMPUS-2011- ES.
- Smart Control Systems for Energy Management: New Master Degree (SEM-SEM): 561703-EPP-1-2015-1-UK-EPPKA2-CBHE-JP.
- Integrating Blended Entrepreneurial and Manufacturing Technology Competency into Socioeconomic Development in Egypt (BEMT): 561929-EPP-1-2015-1-ES-EPPKA2-CBHE-JP.

ATTENDED CONFERENCES, WORKSHOPS AND SEMINARS:

Name	Place	Date
Building Blocks: How can Renewable Energy Reach its Potential? Webinar Renewable Energy Focus -World	Abu Dhabi-UAE	December 2010
Workshop for ESP-r Simulation software – Startclyde University	Glasgow – UNITED KINGDOM	February 2012
Workshop For IES-VE (Integrated Environmental Solution – VE) Version 2013	Glasgow – UNITED KINGDOM	June 2012
The first conference of building simulation in Egypt, BSCAIRO2013 under the name building simulation; towards sustainable and green built environment. ISSN-2314-7393	Cairo- EGYPT	June 2013
14th International Conference of the International Building Performance Simulation Association (IBPSA). Building Simulation 2015, Hyderabad - India	Hyderabad - INDIA	December 2015
9th Windsor Conference: Making Comfort Relevant Cumberland Lodge, Windsor, UK.	Windsor – UNITED KINGDOM	April 2016
Programmable Logic Controller (PLC) Training	Hochschule Karlsruhe - GERMANY	February 2019
Virtual Reality (VR) Training	Hochschule Karlsruhe - GERMANY	February 2019
Second International Conference of Building Simulation Cairo “Simulation for Sustainable Built Environment”	Cairo - EGYPT	November 2019
International Conference on Innovation Engineering Technology (ICIET-20)	Cairo - EGYPT	January 2020
11th International Conference on Future Environment and Energy (ICFEE 2021)	Virtual Conference	January 2021