	Curriculum Vitae							
Name	Ahmed Hamza H. Ali							
Title	Prof. Dr-Ing.							
Place & Date of Birth	Elsharkia- Egypt, 16th December, 1963.							
Marital Status	Married with three children							
Email	ah-hamza@aun.edu.eg drahmedhamza@yahoo.com							
Telephone	Home: +20-88-2345695, +20-55-2821656 and Mobile: +20-122-3971265							
Address	Work: Mechanical Power Engineering Department, Faculty of Engineering, Assiut University, Assiut 71516, Egypt (Office +20-88-2411146, Fax +20-882080572)							
	Home1: Appt. 13, 53 Geser El-Sultan St., El-Sadat, Assiut 71111, Egypt Home2: Appt 202, El-Medina Plaza Building No 2, 302 St, Taksim Elkodah, Samouha, Alexandria 21311, Egypt Home3: Salamant, Belbies, Sharika 44628, Egypt							
Education	 Doctoral Degree in Engineering, Muroran Institute of Technology, Hokkaido, Japan, 1999. 							
	 Doctoral Degree in Engineering, Muroran Institute of Technology, Hokkaido, Japan, 1999. MSc. Degree in Mechanical Power Engineering, Assiut University, Egypt, 1992. 							
	BSc. Degree in Mechanical Power Engineering, Assiut University, Egypt, 1986.							
	 High school, Anshas El-Ramel Higher Secondary School, Anshas El-Ramel, El-Sharkia, Egypt, (from October 1978 to June 1981) 							
Work	Academic:							
Experience	• Director; Environmental Studies and Research Center, Assiut University, Assiut 71516, Egypt (October 2023 – Now)							
	 Vice President for Training and Society Affairs-New Cairo Technological University, New Cairo, Cairo, Egypt (16th Feb 2023 – December 2023) 							
	 Professor and Chairman of Mechanical Power Engineering Department, Faculty of Engineering, Assiut University, Assiut 71516, Egypt (July 2021 – July 2023) 							
	 Professor of Refrigeration and Air-Conditioning, Mechanical Power Engineering Department, Faculty of Engineering, Assiut University, Egypt (June 2009 – present) 							
	• Fellow, Professor Academy of Scientific Research & Technology, Cairo, Egypt (November 2015 – 2018 and 2021-till now)							
	 Professor and Chairman of Mechanical Engineering Department, Faculty of Engineering Assiut University, Assiut 71516, Egypt (July 2017 – December 2021) 							
	 Director; Center of Research Excellence for Energy Resources and Management (CRE-ERM) (Dean Level), Egypt-Japan University of Science and Technology (E-JUST), New Borg El-Arab, Alexandria, Egypt, (January 2014 – until January 2015) 							
	 Chairperson of Energy Resources Engineering Department, Egypt-Japan University of Science and Technology (E-JUST), Egypt, (Feb 2013- December 2013) 							
	• Chairperson of Energy Resources and Environmental Engineering Department, Egypt-Japan University of Science and Technology (E-JUST), Egypt, (July 2010 – Feb 2013)							
	 Professor of Renewable Energy, Egypt-Japan University of Science and Technology (E- JUST), Egypt (May 2010 – until January 2015) 							
	 Associate Professor, Mechanical Engineering Department, Faculty of Engineering, Assiut University, Egypt (May 2008– June 2009) 							
	 Professor of Energy Systems, Fraunhofer Institute for Energy Systems and Environmental Engineering, UMSICHT, Oberhausen, Germany (March 2006-April 2008) 							
	 Associate Professor of Heat Transfer, Mechanical Engineering Department, Faculty of Engineering, Assiut University, Egypt (June 2004 – Feb. 2006) 							
	 Assistant Professor, Mechanical Engineering Department, Faculty of Engineering, Assiut University, Egypt (April 1999-June 2004) 							

- **Research Associate**, Department of Mechanical Systems Engineering, Muroran Institute of Technology, 27-1 Mizumoto-Cho, Hokkaido 050-8585, JAPAN (April 1998 March 1999)
- Teaching Assistant, Department of Mechanical Systems Engineering, Muroran Institute of Technology, 27-1 Mizumoto-Cho, Hokkaido 050-8585, JAPAN. (April 1996 - September 1997).
- Assistant Lecturer, Mechanical Engineering Department, Faculty of Engineering, Assiut University, Egypt. (December 1992 September 1994).
- **Demonstrator** (teaching and research assistant), Mechanical Engineering Department, Faculty of Engineering, Assiut University, Egypt. (June 1987 November 1992).

Professional and practice Experiences

- Certified Consultant and Professional Engineer of Environmental Studies, Egypt Engineers Syndicate (License no. 1373/3 Egypt 2024- until now)
- Certified Consultant and Professional Engineer of New and Renewable Energy Engineering and Energy Efficiency, Egypt Engineers Syndicate (License no. 1373/3 Egypt 2012- until now)
- Certified Consultant and Professional Engineer of Refrigeration and Air-Conditioning, Egypt Engineers Syndicate (License no. 1373/3 Egypt 2019- until now)
- Industrial Energy Audit and Efficiency
- Solar Heating, Solar Cooling, and Solar Power Generation Systems
- Energy and buildings, including HVAC (Heating, Ventilating, and Air Conditioning) Systems
- Thermal Process Engineering Systems

List of M	Iega Projects a	and Dutie	es						
Project no.	Project name	duty	contract value	contractin g entity/clie nt	project location/ country	duration (mm/yy to mm/yy)	expert month s provid ed	The main activities I performed in this project	objectives
1.	Clean Energy Promotion Using Solar Photovoltaic Systems in the Arab Republic of Egypt	Project local Manager	12 Million USD	JICA/J apan	New Borg El-Arab, Alexandria, Egypt	May 2010 to Now	May 2010 to Jan 2015	For all project stages, I was the Egypt side designer and engineering consultant partner with Oriental Consultants Co., LTD., Tokyo, from the site survey until finalizing of the tender documents. This includes but is not limited to plant design, the issue of the local license needed., etc. Also, I prepared the project progress reports.	Turnkey Solar PV plant of 1.2 MWp capacity at New Borg El-Arab, Alexandria, Egypt (Peak Power Generation Capacity 1200kW in 2012) (The project has not yet started the construction stage)
2.	SHAAMS- Strategic Hubs for the Analysis and Acceleration of the Mediterranea n Solar Sector. Cross- Border Cooperation within the European Neighbourho od and Partnership Instrument (project I- A/2.3/234)	Egypt Project Manager	3.5 million Euro	(ENPI) - Medite rranean Sea Basin Joint Operati onal Progra m, EU	(Spain, Italy, France, Greece, Lebanon, Jordan, and (Egypt- Alexandria)	Nov.20 12-Oct 2015.	Nov. 2012 - Jan.2 015	I was the technical team leader in gathering the required data and prepared Egypt's state-of-the-art report on Energy resources and needs. This is followed by the solar energy sector, particularly with a proposal for long-term recommended policies for utilizing solar energy resources. I prepared the project progress reports.	SHAAMS project aims at raising public awareness of solar energy through the transferability and implementation of good practices in legal, regulatory, economic, and organizational issues and financing mechanisms to facilitate the take-up of solar technologies

3.	Documentation n for the project (Promoting low-carbon technologies for cooling and heating in industrial applications) Country: Egypt, GEF Project ID: 4790	National and local Expert in solar heating and cooling technolo gies and system design	6 million USD	UNID O/head office	Cairo/ Egypt	3 Month	Sept. 2013 to Dec. 2013	In this short-term task, I searched for Egypt's available industrial solar heating and cooling plants. I visited these project sites and found six industrial solar heating plants and two solar cooling plants. Some of these plants are in operation, while others are not working, and some of their hardware disappeared. Therefore, based on these projects' available documentation, I prepared the technical status report to support my	Is to report to the project manager in Austria the main project activities should the project cover and tasks based on actual ground satiation of solar heating and cooling state of the art in Egypt
								report to support my evaluation and recommendation for the suggested project that can be directed	
4.	"Solar-Driven Adsorption Cooling for Residential Air- Conditioning" -System Evaluation and Comparison to Conventional Chillers, GERF 612- IB 08/012	Project Manage r	200K Euro	International Bureau of the Germa n Federal Ministr y of Educati on and Resear ch IBFM- Bonn and STDF- Egypt	Assiut/ Egypt	June 2009- June 2012 (There are 1.5- year frozen project activiti es due to the 25 th Januar y revolut ion)	June 2009 -June 2012	for implementation. I led Egypt, carried out the design tender documents, and supervised the installation and system operation. I prepared the project progress reports.	This applied research project includes designing, setting up, and operating an integrated solar-operated residential cooling plant in a hot, arid area. It is based on electrical energy consumption, the evaluation of environmental benefits, and long-run costs. The project objective is also to compare experimentally and analytically the residential energy scale solar-driven system to an electrically driven vapor compression chiller under the operating conditions of hot areas.

Scientific and Professional Memberships

- Vice chairman of the Aeronautics and Space Engineering Committee, Egypt Engineering Syndicate, Egypt June 2024- now
- Member of the Egypt National Scientific Committee to examine the scientific production to fill the associate and full professors' positions for mechanical power engineering, automotive engineering, and aviation engineering- Cairo - September 2016 until now (for the 3rd round).
- Member and Fellow Professor, Electricity and Energy Committee, Academy of Scientific Research and Technology, Egypt, from November 2015 until May 2018, and from December 2021 until Now.
- Member of Scientific Council, The Egyptian Center for the Advancement of Science, Technology, and Innovation (ECASTI), Egypt, June 2014 until Now
- Member of World Society of Sustainable Energy Technologies, UK, August 2013 until now.
- Egyptian Engineering Energy Consultancy, from 2012 until now.
- International Solar Energy Society (ISES) from 1994 until now.

- Engineering Consultations and Studies Centre, Faculty of Engineering, Assiut University, Egypt, from 1999 until now.
- Egyptian Engineering Syndicates from 1986 until now.
- The Heat Transfer Society of Japan (from 1999 to 2002)
- Japan Society of Mechanical Engineers (JSME) (from 1999 to 2004)

Awards and Prizes

- Regional Winner of the African Continent (North Africa) -Titans Building Nations, South Africa, September 2016.
 (https://issuu.com/ceoglobal/docs/titans_digital_magazine_2016./c/sml8ale)
- The Arab Fund Fellowships Program, Kuwait, The distinguished scholar award (March 2010 -Feb 2011)
- Alexander von Humboldt Foundation, Germany, Return Home Fellowship (May 2008 April 2009)
- Alexander von Humboldt Foundation, Germany, Fellowship (March 2006 April 2008)
- Finland Ministry of Trade, Finland, Awards (September 6-17, 2004)
- Association of International Education, Japan, Honours Professional March 1999)
- Japanese Government (MONBUSHO), Japan, Scholarship (Oct.1994 March 1998)
- Finland Government, Finland, Award (June 1985 Sept. 1985)
- Scholarship, Government of Egypt, (undergraduate study from Oct. 1982- June 1986) due to obtaining top student in a class of about 70 students.

Teaching Experiences from 1987 till now

Undergraduate Level:

Solar Energy, Unconventional Energy Systems, Refrigeration and Air-Conditioning, Refrigeration and Environmental Control, Industrial Ventilation, Heat Transfer, Heat Exchangers, Cooling of Electronics Equipment, Basics of FORTRAN language Programming, Engineering Drawing, and Mechanical Engineering Laboratories.

Graduate Level:

Refrigeration systems, Industrial ventilation, Thermal energy storage, Energy Efficient Buildings, Energy Systems, Hybrid Power Generation Systems, Sustainable Energy Utilization, Energy management, Solar Cooling and Heating, Air-Conditioning and Clean Room Technology, Night Sky Radiation Cooling, Sustainable Energy, Renewable Energy Utilization, Advanced Topics in Heat Exchangers, Advanced Topics in Convective Heat Transfer, Advanced Topics in Thermal Radiation Heat Transfer, Heat and Mass Transfer in Pours Media, Fluidized Bed

Number and themes of supervised Master's and Ph.D. students from 1999 till now

No.	Degree	Thesis title	
1	PhD	Development of A Small-Scale Wind Concentrator Turbine	completed
2	PhD	•	-
2	FIID	Theoretical and Experimental Study of the Performance of an Adsorption Cooling System Using Activated Carbon/R134a Pair	completed
3	PhD	Study on Heat and Mass Transfer in Adsorbent Pairs for	completed
		Development of Compact Adsorption Chiller	1
4	PhD	Renewable Energy Utilization for New Cities in Hot Arid Areas:	completed
		A Proposed Strategy for Egypt	
5	PhD	Performance and Optimization of a Solar Driven Small-Scale Adsorption Cooling System	completed
6	PhD	Studies on Solar-Powered Vapor Absorption Cooling System	In defence
0	TIID	Integrated with Hybrid Thermal Energy Storage	III defence
7	PhD	Performance optimization of a thermoelectric cooling system with	In progress
		different finned heat transfer surfaces	1 0
8	PhD	Development of a cooling system for electric vehicle power battery	In review
		packs	
9	PhD	Optimization of Hybrid Steam Injection and Nanofluids for	In progress
10	MSc	Enhanced Oil Recovery Numerical Study of Some Class of Boundary Heat and Mass	aammlatad
10	MSC	Transfer Problems- Case Study of Urea Prilling Process	completed
11	MSc	Performance Assessment of Turbojet Engine Operated with	completed
		Alternative Biodiesel	-
12	MSc	Effect of Dust Deposition and Ambient Air Temperature on	completed
		Performance of Photovoltaic Modules	
13	MSc	Study of The Characteristics of Photovoltaic Modules Under	completed
14	MSc	Optimization of Thermal Storage System Integrated in a Solar-	completed
14	Misc	Powered Adsorption Cooling System	Completed
15	MSc	Experimental and Simulation Study of the Thermal Comfort	completed
		Conditions within Recent Designed Governmental Primary	
16	MSc	Schools in Egypt Performance of a Solar Driven Refrigerator with Thermal Cold	aammlatad
16	MSC	Storage for Agriculture Crops Reservation	completed
17	MSc	Assessment of Energy Status for Existing Office Buildings using	completed
		the World Standards of Energy Star System	-
18	MSc	Effect of Flow Field Passage Configurations on the Performance	completed
19	MSc	of Proton Exchange Membrane Fuel Cells (PEMFCs) Performance Study on Shrouded Dual Rotor Wind Turbine for	completed
17	Wisc	Small and Micro Wind Systems	Completed
20	MSc	Comparative Study between Variable Refrigerant Flow (VRF)	completed
		Systems and Conventional Systems based on Economics and	
21	MC	Energy Efficiency	T.,
21	MSc	Characteristics of Industrial Ventilation Plume for Thermal Point Source	In progress
22	MSc	Investigation of the Performance of a Green Hydrogen Generation	In progress
		System Utilizing Dual Solar Energy Converted Forms to Energize	
22	140	an Electrolyzer	T
23	MSc	Investigation of Integrated Energy Efficiency and Solar Heat in Industrial Processes Based on Cost-Performance and	In progress
		Environmental Impact	
<u> </u>		Environmental impact	

Research and Professional Activates Topics Carried out

- Solar Energy Cooling and Heating Systems and Solar Power Generation
- Renewable Energy Systems
- Energy and Buildings, including (HVAC)
- Energy Audit and Efficiency
- Industrial Energy Efficiency

- Thermal Energy Storage Systems.
- Nocturnal Radiation Cooling Systems for building cooling,
- Design and performance of small-scale thermally driven chillers
- Photovoltaic (PV) and Concentration Photovoltaic (CPV) Modules Thermal Regulation systems
- Convection with radiation heat transfer at a solid boundary
- Combined heat and mass transfer

Research Projects

- (1) The Researcher of the project titled: Addressing Skills Gaps and Mismatches in the Emerging Energy Sector Transition: A Prospectus for the Common Future Skill Trends in Tunisia, Albania, and Egypt. ETF (European Training Foundation) Jan 2024- Dec 2024
- (2) Co-PI (Egypt Side) of the project titled: "Enhancing Research Environment and Innovation in Renewable Energy and Sustainability in Egypt (E-RISE)" Lead PI Cardiff Metropolitan University, UK, **Founded by British Council Going Global Partnerships (GGP) Programme** 2023-2024, From January 2024- Dec 2024.
- (3) Local Consultant for the project titled: The Future of Skills: Case study of the Energy Sector in Egypt. Lead by Fondazione Giacomo Brodolini srl SB and Erre Quadro srl **for ETF** (**European Training Foundation**) July 2022-Dec 2023
- (4) The PI of the project is titled Design and Performance of CSP Technology Effective in Hybrid PV/T System in Hot Area using Nanofluid. Submitted to Joint Research Grant Under the India-Egypt Agreement on Science and Technology Cooperation, Egypt, 2019
- (5) CO-PI of a project titled: Self-Sustained District Cooling and Heating System with Under-Ground Heat Exchange for NEOM city. Submitted to KSA International Collaboration Grant with King Abdulaziz University, KSA, 2019
- (6) CO-PI of a project titled: Solar Driven Transportable Refrigerator for Postharvest Crops Handling Form Desert Areas Farms. KSA International Collaboration Grant with Taif University, KSA, 2019
- (7) CO-PI of a project titled: Business models for PV-battery systems economic analysis and comparison of decentral systems and public buildings, a Joint project between Assiut University and Fraunhofer-Institute for Solar Energy Systems ISE (Sept 2018- Now)
- (8) PI of a project titled: Solar-driven transportable cold storage for postharvest crops in desert areas of Egypt, JESOR---Development Academy of Scientific Research and Technology, Egypt, May 2016- June 2018
- (9) CO-PI of a project titled: A Dynamic Techno-Economical Analysis of the Energy System of Egypt, Academy of Scientific Research and Technology, Egypt, Sept 2016- Feb 2018
- (10) CO-PI of a project titled: The future vision of energy needs in Egypt for 2030-Phase one, Academy of Scientific Research and Technology, Egypt, April 2016- June 2017.
- (11) PI- Project titled: SHAAMS- Strategic Hubs for the Analysis and Acceleration of the Mediterranean Solar Sector. Cross-Border Cooperation within the European Neighbourhood and Partnership Instrument (ENPI)-Mediterranean Sea Basin Joint Operational Program (Spain, Italy, France, Greece, Lebanon, Jordan, and Egypt (project I-A/2.3/234, November 2012-January 2015.
- (12) CO-PI of a project titled: Development of a Small Scale Thermal Driven Adsorption Air Conditioner with the aid of Nanotechnology, King Saud University, Sept 2012- August 2014
- (13) PI of a project titled: Enhancement of the product quality exit from Urea Prilling Tower in Hot, humid months, ABU-Qair fertilizer Co. Alexandria, April 2010- Dec 2011
- (14) CO-PI of a project titled: Dual Renewable Energy GOLF CAR, King Saud University, May 2011- Sept 2011
- (15) PI of a project titled: Solar-Driven Absorption Cooling for Residential Air-Conditioning.
 621 GERF (German-Egyptian Research Fund) June 2009-June 2012. Science and Technology Research Found (STDF)
- (16) Optimization Study on Operation of Solar-Thermal Driven Plants for Cold Production, German Ministry of Economy (Project No. FKZ 0327406D-2007)
- (17) Cool Home with Micro-Polygen (Entwicklung einer hochkompakten, thermisch angetriebenen Kleinst-Kältemaschine für die Wohnraumklimatisierung als Ergänzung zu dezentralen Kraft-Wärme-Kopplungs-Aggregaten) Deutsche Bundesstiftung Umwelt, Germany, (Project no. 1187/-1173/-1195-2006)
- (18) Untersuchung und Optimierung eines Verfahrens zur solaren Kälteerzeugung auf Basis von Parabolrinnekollektoren und einer Dampfstrahlkältemaschine. Deutsche Bundesstiftung Umwelt, Germany (Project No. AZ 22692- 2006)

	(19) Experimental Evaluation of the Performance of Marmox COSY STONE Radiant Heating Panels in Comparison with Conventional Convective Oil Heater, Chemicals for Modern Building (CMB) Co., Cairo, Egypt, 2005					
Reviewer for the following Int. Journals	• Int. J of Refrigeration, Energy, and Buildings, Int. J of Air-Conditioning and Refrigeration, ASHRAE Transaction, Solar Energy, Energy, Applied Energy, Applied Thermal Engineering, ASME J of Heat Transfer, Int. J of Heat and Mass Transfer, Heat and Mass Transfer, J. of Membrane Science, and J. of Measurements					
	 The organizer of 7th Int. Conf. On Future of New and Renewable Energy in Arab World, February 12- 14, 2013, Assiut, Egypt. Joint Conference between EJUST and Assiut University The organizer of 12th International Conference for Development and Environment in the 					
				Environmental & Climate 2024 – Assiut University		
Languages/Spe		Speaking	Reading	Writing		
cial Skills	Arabic	Native	Native	Native		
	English	Excellent	Excellent	Excellent		
	Japanese	Good	-	-		
	German	Good	-	-		
	Scopus H-index 21, total citation 1307, as per May 3, 2024 1- ORCID profile: https://orcid.org/0000-0002-8734-6762 2- Scopus profile: https://www.scopus.com/authid/detail.uri?authorId=7403355399 3- Google Scholar: https://scholar.google.com/citations?user=2-GxmR0AAAAJ&hl=en					
Editor and Coeditor for the following Journals	 Editor- Assiut University Bulletin for Environmental Research (ISSN:1110-6107) https://auber.journals.ekb.eg/journal/editorial.board International Journal of Energy and Water Resources (ISSN 2538-3604) Springer https://www.springer.com/journal/42108/editors Journal of Engineering and Applied Science ISSN: 2536-9512 (electronic), ISSN: 1110-1903 (print)					
	nttp		ublications			
	1	List of Pt	uoncations			
Int. J. with	Year 2024	V Chamas Dilia G	thomas and Abress III-	nza H. Ali. (2023) Experimental		

Int. J. with
SCI (Thomson
Reuters) and
Refereed Int. J.

- (1) Dinesh Kumar Sharma, Dilip Sharma, and **Ahmed Hamza H. Ali**, (2023) Experimental Study on Performance of a Solar Thermal-Driven Vapor Absorption System Integrated with Hot Thermal Energy Storage for Milk Chilling, ASME *J. Sol. Energy Eng. Jun 2024, 146(3): 031011 (11 pages)*, Paper No: SOL-23-1157 https://doi.org/10.1115/1.4064113
- (2) Ahmed Abdelfattah Abdelwahed Morsi, Mohamed Fekry Farah El-Dosoky, Othman Hassan Othman, Mohamed Mahmoud Sayed Ahmed, and **Ahmed Hamza H. Ali**, (2024) Numerical Investigation on the Effect of the Azimuthal Deviation on Performance of Equal Speed Co-Rotating Double Rotor Small-Scale Horizontal-Axis Wind Turbine. JES. Journal of Engineering Sciences, Volume 52, Issue 1, January and February 2024, Page 16-35, https://dx.doi.org/10.21608/jesaun.2023.239362.1267
- (3) A. Ashraf Zein Al Abdeen, Mahmoud Nady AdelMoez, **Ahmed Hamza H. Ali**, (2024). Thermoelectric Cooler with Different Fins Configuration. Assiut University Bulletin for Environmental Research Vol. 27 No.1 March 2024 pp. 26-39. https://doi.org/10.21608/AUBER.2024.286324.1076

- (4) Mohamed Hassan Soliman Mohamed, **Ahmed Hamza H. Ali**, Ibrahim Mohamed Ismail (2024). Thermal Management Systems for Li-Ion Batteries Used in Electric Vehicles. Assiut University Bulletin for Environmental Research Vol. 27 No. 1 March 2024 pp. 51-99. https://doi.org/10.21608/auber.2024.288607.1085
- (5) Mohamed Hassan Soliman Mohamed, **Ahmed Hamza H. Ali**, Ibrahim Mohamed Ismail (2024). Performance of a Novel Thermal Management System of Li-Ion Batteries Used in Electric Vehicles. Assiut University Bulletin for Environmental Research Vol. 27 No. 1 March 2024 pp. 100-112. https://doi.org/10.21608/AUBER.2024.288577.1084
- (6) Ibrahim Hassan M. Sadeek, Osman Omran Osman, Mahmoud Nady Abdelmoez, **Ahmed Hamza H. Ali** (2024). Energy Efficiency and Environmental Impact Assessment of Steam Power Plant Boiler. Assiut University Bulletin for Environmental Research Vol. 27 No. 1 March 2024 pp. 150-162. https://doi.org/10.21608/AUBER.2024.290268.1086
- (7) M. Amir Abd Elhamid, Ibrahim M. Ismail, **Ahmed Hamza H. Ali** (2024). Performance and Environmental Impact Assessment of Industrial Ventilation Systems for Internal Contamination Sources. Assiut University Bulletin for Environmental Research Vol. 27 No. 1 March 2024 pp. 163-176. https://doi.org/10.21608/AUBER.2024.286071.1087
- (8) Ahmed A. Hussien, Ahmed Hamza H. Ali, Ibrahim M. Ismail (2024). Comparative Investigation of the Energy Efficiency of Mini-Split Air Conditioning with Variable Refrigerant Flow Systems for Office Buildings in Hot Climate. JES. Journal of Engineering Sciences, Volume 52, Issue 2, March 2024, Page 52-72. https://doi.org/10.21608/JESAUN.2024.243091.1273

- (9) Dinesh Kumar Sharma, Dilip Sharma, and **Ahmed Hamza H. Ali**, (2023) Optimization and thermo-economic performance of a solar-powered vapor absorption cooling system integrated with sensible thermal energy storage. Energy Conversion and Management: X, Vol. 20, October 2023, 100440. https://doi.org/10.1016/j.ecmx.2023.100440
- (10) Dinesh Kumar Sharma, Dilip Sharma, and **Ahmed Hamza H. Ali**, (2023) Multi-Attribute Decision-Making Tools for Selection of PCMs as Latent Heat Thermal Energy Storage Integrated With Solar-Driven Libr-H2O Vapor Absorption System. Int. Journal of Ambient Energy, Vol. 44-1, March 2023, 1767-1775 https://doi.org/10.1080/01430750.2023.2188257

Year 2022

- (11) Dinesh Kumar Sharma, Dilip Sharma and **Ahmed Hamza H. Ali** (2022). Energy, Exergy, Environmental Impact and Economic (4E) Analysis of ET-CPC-Powered Solar Domestic Water Heating System. Environmental Science and Pollution Research, Vol. 29, <u>June 2022</u>, 82390–82410, https://doi.org/10.1007/s11356-022-21505-2
- (12) Dinesh Kumar Sharma, Dilip Sharma and **Ahmed Hamza H. Ali** (2022). Exergy Destructions Analysis of Evacuated Tube Compound Parabolic Concentrator, Applied Solar Energy, Vol. 57, No. 5, pp. 420–429 <u>March 2022</u>. https://doi.org/10.3103/S0003701X2105011X

Year 2021

(13) Dinesh Kumar Sharma, Dilip Sharma and **Ahmed Hamza H. Ali** (2021). Selection of phase change material for thermal energy storage integrated with solar-powered vapour absorption system. Int. J. Environment and Sustainable Development, Vol. 20, Nos. 3/4, July 2021, pp 297-300, https://doi.org/10.1504/IJESD.2021.116863

Year 2020

(14) Dinesh Kumar Sharma, Dilip Sharma and **Ahmed Hamza H. Ali** (2020). State of the art on solar-powered vapor absorption cooling system integrated with thermal energy storage. Environmental Science and Pollution Research, (2020) Vol. 27:158–189 https://doi.org/10.1007/s11356-019-06941-x

Year 2019

(15) Ahmed M. Reda, **Ahmed Hamza H. Ali**, Mahmoud G. Morsy and Ibrahim S Taha (2019). Optimization and performance of a small-scale adsorption cooling system fully powered by

solar energy for hot arid areas, SN Applied Sciences, 1: 1096, (September 2019) https://doi.org/10.1007/s42452-019-1150-8,

Year 2018

(16) **Ahmed Hamza H. Ali,** Experimental Study on Performance of Solar Thermal Driven Cooling System Versus a Hybrid Mechanical Compression Refrigeration-Solar Thermal Assisted System in Hot Areas. Research-2-Practice Forum on Renewable Energy, Water, and Climate Security in Africa, 16-18, April 2018, Tlemcen, Algeria, https://dx.doi.org/10.2139/ssrn.3211253

Year 2017

- (17) **Ahmed Hamza H. Ali**, Design Optimization of Staggered Plates' Channel Heated by Radiation Heat Flux based on the Convective Heat Transfer and Fluid Flow for Hybrid Photovoltaic/Thermal System, Sustainable Energy Technologies and Assessments, Vol. 24, PP. 55-70 (December 2017) https://doi.org/10.1016/j.seta.2017.01.009
- (18) **Ahmed Hamza H. Ali**, Performance-cost and global warming assessments of two residential scale solar cooling systems versus a conventional one in hot arid areas. Sustainable Energy Technologies and Assessments, Vol. 20, PP. 1-8 (April 2017) https://dx.doi.org/10.1016/j.seta.2017.01.006,
- (19) **Ahmed Hamza H. Ali**, Heba AbdelRasheed S. Zeid, and Hassan M.G. AlFadhli. Energy Performance, Environmental Impact, and Cost Assessments of a Photovoltaic Plant under Kuwait Climate Condition, Sustainable Energy Technologies, and Assessments, Vol. 22, pp 25–33 (August 2017) https://doi.org/10.1016/j.seta.2017.05.008,
- (20) Ahmed Hamza H. Ali and Ali Nasser Alzaed. Residential scale solar-driven cooling systems versus conventional air-conditioning in hot arid areas: A comparative study. Materials Physics and Mechanics, Vol. 32, pp 21-30, (2017) https://doi.org/10.18720/MPM.3212017 4,
- (21) **Ahmed Hamza H. Ali** and Mohamed Noureldin Ibrahim, Performance and Environmental Impact of a Turbojet Engine Fuelled by Blends of Biodiesels. International Journal of Environmental Science and Technology. Vol. 14, Issue 6, pp 1253–1266, (June 2017) https://doi.org/10.1007/s13762-016-1228-4,
- (22) **Ahmed Hamza H. Ali**, Performance-Cost and Global Warming Assessments of Two Residential Scale Solar Cooling Systems versus a Conventional One in Hot Arid Areas, Sustainable Energy Technologies and Assessments, Vol. 20, pp 1–8, (April 2017) https://doi.org/10.1016/j.seta.2017.01.006
- (23) **Ahmed Hamza H. Ali**, Performance Assessment and Gained Operational Experiences of a Residential Scale Solar Thermal Driven Adsorption Cooling System Installed in Hot Arid Area. Energy and Buildings, Vol. 138, pp 271–279, (March 2017) https://doi.org/10.1016/j.enbuild.2016.12.062,
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- (189) Sustainable Cooling of Educational Space using an Underground Water-Cooling System. Humboldt Kolleg "Functional Material Development for New World" Mahdia, Tunisia, October 5 7, 2023
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- (191) Contribute to the workshop session on renewable energy as an expert resource at the REN21 Academy 2018, Berlin, Germany, 19-21 November 2018
- (192) The Future of Solar Energy: The Case of Egypt, Humboldt Kolleg: German-Egyptian Network for Innovation and Development, InterContinental Cairo Citystars, Cairo, Egypt, February 22 and 23, 2017
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- (199) Effects of large-scale renewable energy projects on climate, water, and ecosystems. Workshop on socio-economic impacts from large-scale renewable energy cooperation between the Middle East and North African region (MENA) and the European countries. IIASA, 22-23 of May 2013 in Luxembourg, Austria.
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- (201) Comparison between Solar Driven Cooling System with Conventional Non-Water Vapour Air-Conditioning Unit: Energy Saving and Impact on Global Warming. Session 1: Energy, Humboldt Kollege, New Prospects and Challenges for Science and Education in the MENA region, Marrakech, Morocco, March 9-11, 2012.

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