# **Curriculum Vita**

## Name: Gassem Azzain

## **Personal information:**

Addresses: Sebha University

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**Date and Place of** 11.01.1965, Sebha – Libya

birth:

Marital Status: Married & a father of three

Languages: Arabic – Mother tongue,

**English** – Fluent **Polish** – Fluent











## Education: Graduate and post-graduate university certificates obtained

Dec. 2007	<b>Doctor's Degree of Philosophy (Ph.D.)</b> in Thermal Engineering field, "Solar Energy", with "Distinction" grade and honor for the thesis titled "Dynamic Simulations of Complex Domestic Solar Energy Systems with Thermal Storage Alternatives" from (ITC) or (IHE),, Warsaw University of Technology (PW).		
Dec. 1996	Master's Degree of Sciences (M.Sc.) in Thermal Engineering field, "Solar Energy", "Investigation of Solar-Thermal Energy Conversion and Storage Process using Flat Plate		
	Solar Collector", with "Very Good" grade from (ITC) or (IHE), Warsaw University of		
	Technology (PW).		
May 1988	Bachelor's Degree of Engineering Technology (B.E.Tech.) in Mechanical Engineering,		
	"Power Generation", with "Very Good" grade; the Higher Institute of Mechanical and		
	Electrical Engineering (HIME Engg.), Hoon-Libya.		

#### **Academic Job history:**

2008 up to	Lecturer of Thermal, solar Engineering and Fluid Mechanics in the Mechanical,		
date	Petroleum, and Chemical Engineering Departments Faculty of Engineering, Sebha		
	University (SU) - Libya.		
2008-2011	Lecturer of Thermal Power Station Components, Solar Energy and Instrumentation		
	and Control at the Higher Center of Inclusive Vocations, Sebha - Libya.		
2006 -2007	Lecturer of Thermal Power Station Components and Heat and Mass Transfer at the		
	Higher Center of Inclusive Vocations, Bent-baya - Obari - Libya.		
2000-2001	Lecturer of Solar Energy, Refrigeration and Air conditioning at the Higher Cente		
	Industrial Technology, Anejeelah - Tripoli - Libya.		
2000-2001	Lecturer of Renewable Energy Sources and Fluid Mechanics at the Higher Center of		
	Mechanical Vocations, Janzuor - Tripoli - Libya.		
1997-2001	Lecturer of Thermodynamics in the Mechanical Engineering Department, Faculty of		
	Engineering Sciences and Technology, SU - Libya.		
1989-1993	Demonstrator and Engineer, Faculty of Engineering Sciences and Technology, Sebha		
	University (SU) - Libya.		

## **Publications with Participation in conferences forums & workshops:**

- 1) July 29-30. 2017; Author; Investment in Renewable Energies Utility Scale Power Generation Projects and Power Purchase Agreement PPA, Seminar on Clean Energy: Prospects for sustainable development under clean energy. Desert Moon Resort (Twiwah Owbari) Libya. (in Arabic).
- 2) Nov. 2016; Co-author with Elowa M.I., "Dynamic Simulation of Performance and Thermal Storage Behavior for a "CSP" Parabolic Trough Power Plant, If Operated in the South Region of Libya", The 1<sup>st</sup> International Conference on Chemical, Petroleum, and Gas Engineering (ICCPGE 2016) 20<sup>th</sup> 22<sup>th</sup> December 2016, Alkhoms-Libya.
- 3) Spt. 2016; Co-author with Elowa M.I., "Simulation study of solar water pumping systems to combat desertification and provide life support in both urban populated territories and isolated desert along the south of Libyan coastal line", JERAS, ISSN 2415, 3rd. edition, 2016, Hoon, Libya, (in Arabic).
- 4) Mar. 2016; Co-author with Elowa M.I., "Effect of some types of building materials on the thermal load

- for a residential house in Sebha area""; Journal of Sebha University for applied Sciences., Sebha Libya. (in Arabic).
- 5) Mar. 2016, Co-author with Emraja H. L., "Solar Water Pumping System Versus Electrical Conventional Water Pumping System in the Agricultural Area of Owjilah"; Solar Energy and Sustainable Development; a refereed, biannual scientific journal; Center for Solar Energy Research and studies; Tripoli- Libya. (in Arabic).
- 6) Feb. 2016, , "Exploration of the potential employment opportunities in the field of renewable energies in Wadi AL-ajal" Solar Energy and Sustainable Development ;a refereed, biannual scientific journal;; Center for Solar Energy Research and studies; Tripoli-Libya.
- 7) Nov. 2010, "Development of Scientific Applied Research in High Studies Using Modern Digital Simulation Methods", Forum about the Contribution of High Studies Programs into the National Development Plans in Libya. Sebha, Center of Languages, Sebha University. (in Arabic).
- 8) Oct. 2010, , "'TRNSYS 16' a Complete Digital Experimentation Platform and Simulation Studio for Transient Systems and Intelligent Buildings". The Journal of Sebha University for applied Sciences.. Sebha Libya.
- 9) 12-13.05.2009, , "National Investment in Renewable Energies, Future Vision for Economical Growth, Sustainable Development and Environment Protection", Forum about private sector development and investment opportunities, High Center of General Vocations and Trainers preparation, Sebha, Dome Culture Sebha. (in Arabic)
- 10) 2009, , "Comparison of Performance and Solar Contribution of Evacuated –tube versus Flat-plate Collectors into Space Cooling via Solar Assisted Absorption Chiller at Sebha-Solar House". The Journal of Sebha University for applied Sciences. Sebha Libya.
- 11) 2009, , "Evaluation of Cooling Load of Sebha –Solar House and the Performance and Capacity of its Solar Assisted Absorption Chiller". The Journal of Sebha University for applied Sciences. Sebha Libya.
- 12) 20-24 Dec. 2008, , "Dynamic Simulation of Phase Change Material (PCM) as Thermal Energy Buffer in Domestic Buildings under Conditions of Typical Meteorological Year "TMY" at the Desert". The Journal of Sebha University for applied Sciences. Sebha Libya.
- 13) 22-26 Sep.2008, , "Simulation of Proposed Solar Space Heating System with Rock-bed Heat Storage and PV-thermal collector for Sebha Solar House at the South of Libya". The Journal of Sebha University for applied Sciences. Sebha Libya.
- 14) 22–27 Jan. 2006, , "Assessment of Thermal Load Reduction due to the Application of Simple Passive Techniques in a House-Office Building at the South of Libya". WREEC 2006, Tripoli Libya.
- 5-8 Sep. 2005, , "Comparison of Two Solar Passive Space Heating Techniques, Thermal Storage Wall Verses Direct-Gain Window with Overhang" 19th Meeting of Thermodynamicists, Sopot, Poland.
- 16) 14-15 Oct. 2003, , "Simulation and Design Criteria for Solar Domestic Water Heating System at Sebha Libya". International Conference for Energy and Environment, ICEE2003, Brack Libya.
- 17) 1-4 Sep. 2003, Poster ,. "Design criteria for Optimum Solar Domestic Water-Heating System for Warsaw", The 9th International Conference on Thermal Energy Storage, FutureStock 2003, Polytechnic Warsaw (PW), Warsaw Poland.
- 18) 2003, , "Generation of First Typical Meteorological Year (TMY) for Sebha City", Bulletins of Institute of Heat Engineering (IHE), Polytechnic Warsaw (PW). Poland.

#### **Professional activities:**

Feb. 2018	Member of Organization committee of REEO for Owjila forum ' The role of Renewable Energies and Spatial Development to Combat Desertification and Migration.
Dec. 2017	Presentation and Project proposal, Workshop on Techno-economical Aspects of Solar power of water pumping for irrigation in Agricultural Projects. The Libyan Bank of Agriculture.
Aug. 2017	AGNA Coordinator of Technical workshop on Ghadames 2000 MW Solar farm project; with PIB - Libya, GECOL & REEO, (Tunis, Tunisia; 14-16.Aug. 2017.
Apr 2016	AGNA Coordinator of Technical workshop on Solar Power Transmission Across the

	Mediterranean from Tubrog to southern Europe with GAEREL Int. Investor , (Tunis, Tunisia; 3-8.Aug. 2016.	
Jun. 2015	AGNA Coordinator of Technical workshop on Ghadames 2000 MW Solar farm project; with PIB - Libya, GECOL & REAOL, (Djerba, Tunisia; 3-8.Aug. 2015.	
Jun. 2014	Translation and review of the Tunisian Renewable Energies Act.; with AG Energy partners.	
Oct. 2013 up to date	Manager as Libya's Liaison Officer & Technical Advisor, AGNA limited, Coordinator for Ghadames 2000 MW Solar farm project; with PIB - Libya, GECOL & REAOL.	
Nov. 2013	Technical Consultant as Senior Manager Solar Energy Projects; AG Energy partners.	
Apr. 2013	Representative of Sebha University to the Desertec University Network (DUN).	
Jan. 2011 Mar. 2011	A Trainer in Mechanical Engineering Training Program for New Employees of GECOL for Owbari's New Gas Power Plant. Higher Center of Inclusive Vocations, Sebha Libya	
Apr. 2010	Co-founder of the Renewable Energy Engineering Society REES in Sebha Libya.	
Mar. 2010	Collaborative Member in the committees for the 300 MW Sebha CSP Solar Power Plant Project, General Electricity Company of Libya (GECOL).	
July 2009 Mar. 2010	A Trainer in Mechanical Engineering Training Program for New Employees of GECOL for Gas and steam Power Plants operation and maintenance. Institute of GECOL, Msallata, Libya.	
Feb. 2009 Oct. 2010	Collaborative Technical Consultant in solar energy aspects with various governmental and private institutions such as GECOL, REAOL, Almansoura Holding, Al-Ekhlas Charity Organization.	
Feb. 2007 up to date	The person in charge for the establishment of the department of Renewable Energies Engineering at Sebha University - Libya.	
Oct. 2005 Feb. 2007	Member of the establishing committee of Petroleum, Material, and Chemical engineering departments, at Sebha University - Libya.	
May. 2005 till 2006	Member of the committees of the Experts in Engineering & Technology at the Local Council of Sebha Municipality - Libya.	
1988-1989	Mechanical Engineer at Sebha-Western Power Station, the General Electricity Company of Libya (GECOL).	

## **Skills:**

- Using of PC and various office equipment, and many technical instruments.
- Using MS office software.
- The first authorized **TRNSYS** user in Libya by **CSTB France**, (Since 2003).
- The ability of making contact and cooperate with the people easily.
- Managing of team work and working group guiding.
- Working on training programs management for Ideas implementation.

## **Interests:**

Travel, Cinema, Music and Theater,	<b>Hobbies</b> : Reading, Painting, & Light sports.
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