

CURRICULUM VITÆ

The personal data	
Full name	Assist Proof Dr. Dhafer Manea Hachim AL-Hasnawi
Date of birth	Najaf -1977
Title / workplace	Engineering Technical College / Najaf, Al-Furat Al-Awsat Technical University, 31001 Najaf, Iraq.
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Academic Qualifications				
Qualification	University Name	Field- Specialization	Location / Country	Graduation Year
BSc	Kufa	Mechanical Engineering - General	Faculty of Engineering / Iraq	2000
MS	Kufa	Mechanical Engineering - Power	Faculty of Engineering / Iraq	2003
Ph.D	Basrah	Mechanical Engineering - Power	Faculty of Engineering / Iraq	2011

Scientific expertise		
Jobs and positions that work out	From the date - to date	Review of the main tasks of the job or position
A faculty member in the Department of Mechanical Engineering Techniques of Power / Technical Engineering College of Najaf	2005 until now	Teaching of Advanced Fluid Mechanics and CFD (MTch-Post graduate) and the teaching of Fluid Mechanics (second stage-under graduate)
Manager of alternative and renewable energy research Unit -Engineering Technical College Najaf	2012 until 2018	Work on scientific research in the field of alternative and renewable energies
Head of department Mechanical Engineering Techniques of Power	2018 until now	

Research Interest Areas
Fluid flow and heat transfer numerical Solution, alternative and renewable energies, Solar still, CFD, Heat pipe, and other mechanical researches.

Supervision of M. Sc. and PhD Students		
Title of M.Sc Thesis	From the date - to date	Name of student and the position of the work
Study Of The Performance Of Tubular Solar Still In Iraq	2015-2016	Mr. Hussein Ali Jabar, Engineering College, Department of Mech. Eng./Basrah University
Application of passive cooling techniques in vernacular houses to modern urban houses in Iraq	2017-2018	Mr. Anwer AL-Aasam , Amirkabir University of Technology(Tehran Polytechnic)
Experimental Study To Use Solar Water Heater In Space Heating	2018-2019	Mr. Mohammed Jasim Obaid, Department of Mechanical Engineering Techniques of Power / Technical Engineering College of Najaf

Numerical And Experimental Study For Enhancement Of Single-Slope Solar Still Productivity Using Pcm-Nanoparticles	2018-2019	Mr. Muntadher Muhammed Ali Saeed, Department of Mechanical Engineering Techniques of Power / Technical Engineering College of Najaf
EXPERIMENTAL STUDY OF CYLINDRICAL SOLAR STILL WITH HEMISPHERICAL DOME	2019-2021	Mohammed Abd Al-Amir Khadem, Department of Mechanical Engineering Techniques of Power / Technical Engineering College of Najaf

Scientific Activities and literature and published research (Book - Journal - Conference)			
No.	Research Title	Publisher	Date of Publishing
1-	Numerical Analysis Of Vapor Flow In A Horizontal Cylindrical Heat Pipe	Qadisiyah Journal of Engineering Science / Faculty of Engineering, University of Qadisiyah IV Volume Issue III	2011
2-	Performance Analysis Of Constant Conductance Heat Pipes Using Artificial Neural Networks	Conference Faculty of Engineering, University of Basra for the research of graduate students - March 29, 2011	2011
3-	Renewable energy sources and their applications in Iraq	International Conference on the reform of higher education in Iraq	2012
4-	Reduce noise pollution of small electric generators	Third International Scientific Conference / technical college Najaf	2013
5-	Experimental Study Of the Effect Of Working Fluid Quantity On Performance Of Constant Conductance Heat Pipe	Wulfenia Journal, Vol. 20, No. 3; Mar 2013 Impact Factor 0.267	2013
6-	Thermal Losses Reduction For A Trough Collector: Part 2 Heat Transfer	Al-Qadisiyah Journal For Engineering Sciences, Vol. 8.....No. 22015	2015
7-	Experimental Study of Wave Shape and Frequency of the Power Supply on the Energy Efficiency of Hydrogen Production by Water Electrolysis	International Journal of Innovative Research in Science, Engineering and Technology (An ISO 3297: 2007 Certified Organization) Vol. 4, Issue 12, December 2015	2015
8-	Experimental Study Of The Performance Of Tubular Solar Still In Najaf City	International Journal Of Energy And Environment Volume 6, Issue 6, 2015 pp.587-596 Journal homepage: www.IJEE.IEEFoundation.org	2015
9-	Thermal Losses Reduction For A Solar Trough Collector: Part 1 Fluid Flow	Kufa Journal of Engineering Vol. 7, No 2 (2016)	2016
10-	Experimental Study of the Performance of Low Cost Solar Water Heater in Najaf City	International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS Vol:16 No:01	2016
11-	Theoretical Study The Effect Of Insulation Of Water Basin On The Productivity Of Tubular Solar Still	The 5-th International Conference on Thermal Equipment, Renewable Energy and Rural Development TE-RE-RD 2016, that will be organized in the period 2-4 June at the hotel Atlas - Golden Sands - Bulgaria.	2016
12-	Thermal Analysis of Light Weight Wall Made from Sandwich Panels In The Aspect Of Thermal Insulation Design For Sustainable Built Environment	6th International Conference on Thermal Equipment, Renewable Energy and Rural Development, TE-RE-RD 2017, Moieciu de Sus, 8-10 Jun 2017	2017
13-	Measurements of Wind and Solar Energies in Najaf, Iraq	Advances In Natural And Applied Sciences Journal, Vol:11 No:09- 2 July 2017	2017
14	Novel Technique for Photovoltaic	Journal of Physics Conference Series 05/2018;	2018

	Solar Cell Efficiency Enhancements by Coating with Chlorophyll	1032(1):012023.,DOI:10.1088/17426596/1032/1/012023	
15	Effect of Enhanced Evaporative Cooling on the Performance of Air-Conditioning in Severe Hot Weather	Journal of Engineering and Applied Sciences 10/2018; 13(16):6814-6822.	2018
16	Experimental Investigation Of Parabolic Trough Solar Collector (Ptc) Performance For Water Desalination.	7th International Conference on Thermal Equipment, Renewable Energy and Rural Development-TE-RE-RD 2018, Drobeta Turnu Severin – Romania; 07/2018	2018
17	Experimental Study the Effect of Ambient Temperature on the Performance of Photovoltaic System Work with MPPT Charge Controller in Technical Engineering College of Najaf	International Scientific Conference of Southern Technical University, Basrah, Iraq; 03/2018	2018
18	Improvement the performance of polycrystalline solar cell by coating with mixture of polymer (nitro cellulose) and blue Victoria dye.	International Journal Of Mechanical Engineering & Technology (Ijmet), Volume 9, Issue 11, November 2018, pp. 2332–2338, Article ID: IJMET_09_11_247	2018
19	Study the effect of dust on performance of PV panel and design cleaning system.	International Journal Of Energy And Environment	2019
20	Numerical Study Of The Effect Of Triangular Windbreak On Trough Collector's Drag Force	U.P.B. Sci. Bull., Series D, Vol. 81, Iss. 2, 2019	2019
21	Numerical Investigation for Single Slope Solar Still Performance with Optimal Amount of Nano-PCM	Journal of Advanced Research in Fluid Mechanics and Thermal Sciences 63, Issue 2 (2019) 302-316	2019
22	Experimental Study of the Performance of A Flat Plate Solar Water Heater	4th Scientific International Conference – Najaf – IRAQ (4th SICN-2019)-IEEE	2019
23	Eco-friendly dye sensitized solar cell using natural dye with solid polymer electrolyte as hole transport material	Materials Today: Proceedings, journal	2020
24	Review on the types of solar stills	IOP Conf. Series: Materials Science and Engineering 928 (2020) 022046, IOP Publishing doi:10.1088/1757-899X/928/2/022046	2020
25	Simulation analysis of thermal performance of the solar air/water collector by using computational fluid dynamics	E3S Web of Conferences 180, 02015 (2020), TE-RE-RD 2020	2020
26	Improvement of a Flanged Diffuser Augmented Wind Turbine Performance by Modifying the Rotor Blade Aerodynamic Design	Journal of Advanced Research in Fluid Mechanics and Thermal Sciences	2020
27	New eco-friendly coating for the higher temperature solar cell by nano-composite	ENERGY SOURCES, PART A: RECOVERY, UTILIZATION, AND ENVIRONMENTAL EFFECTS https://doi.org/10.1080/15567036.2020.1860162	2020
28	Study of Two Layers Horizontal Ground Heat Exchanger Performance Under a Different Operation Mode.	IOP Conf. Series: Materials Science and Engineering 928 (2020) 022043 IOP Publishing doi:10.1088/1757-899X/928/2/022043	2020

29	CFD Simulation of Weather Condition Effect on The Performance of Dual Purpose Solar Collector	Al-Furat Journal of Innovations in Mechanical and Sustainable Energy Engineering (FJIMSE) Published by Al-Furat Al-Awsat Technical University (ATU) / Iraq	2021
30	Review on Improvement Techniques of Freshwater Productivity for Solar Distillation Systems	Al-Furat Journal of Innovations in Mechanical and Sustainable Energy Engineering (FJIMSE) Published by Al-Furat Al-Awsat Technical University (ATU) / Iraq	2021
31	Nano-Fluids as a Coolant for Automotive Engine Radiators: Review Study	Al-Furat Journal of Innovations in Mechanical and Sustainable Energy Engineering (FJIMSE) Published by Al-Furat Al-Awsat Technical University (ATU) / Iraq	2021
32	Novel Hybrid PV/T System for Sustainable Production of Distillate Water from the Cooling of the PV Module	IOP Conf. Series: Materials Science and Engineering 1094 (2021) 012049 IOP Publishing , doi:10.1088/1757-899X/1094/1/012049	2021
33	Experimental Study of the Performance of Cylindrical Solar Still with a Hemispherical Dome	Smart Science, DOI: 10.1080/23080477.2021.1876298	2021
34	Najaf Zero Energy House, Suggestions for Design& Construction	IOP Conf. Series: Materials Science and Engineering 1094 (2021) 012013 IOP Publishing, doi:10.1088/1757-899X/1094/1/012013	2021
35	Enhancing the Productivity of Tubular Solar Still by Using the Phase Change Material	Arabian Journal for Science and Engineering https://doi.org/10.1007/s13369-021-05561-3	2021

Practical experiences		
Jobs and positions that work out	Date	Review of the main tasks of the job or position
Install Off Grid PV system with a capacity of 3 kW	2013	Technical Engineering College of Najaf, Jaber Aben Haeen Building
Install Weather Station	2015	Technical Engineering College of Najaf, alternative and renewable energy research Unit
Install On Grid PV system with a capacity of 6 kW	2015	Technical Engineering College of Najaf, Dean Building
Install smart Off Grid PV system with a capacity of 3 kW	2018	Technical Engineering College of Najaf, Department of Mechanical Engineering Techniques of Power Building
Install smart Off Grid PV system with a capacity of 12 kW	2019	Building the presidency of Al-Furat Al-Awsat Technical University