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Profile

Dr. Ahmed Mohamed Soliman is a specialist in modeling, design and simulation of renewable desalination systems.

He was awarded a PhD in Energy Engineering System.

He current is a full-time Asst. Prof. at Mechanical Engineering Department, Engineering College, Jouf University, KSA.

He is also a member of the American Society of Mechanical Engineering ASME.

He also participated in several international and local projects in the field of solar energy and water desalination.

Experience

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| 2015-present | Full time Asst. Prof. Mechanical Engineering Department, Engineering College, Jouf University, KSA. |
| 2010-2015 | Full time Lecturer, Engineering Science Dept., Suez University, Egypt. |
| 2008-2010 | Full time Asst. Ph.D, Faculty of Petroleum and Mining Engineering, Suez Canal University, Egypt. |
| 2006-2008 | Full time researcher staff, combustion Institute, Aachen University, Germany . |
| 2002-2006 | Full time Asst. Ph.D, Faculty of Petroleum and Mining Engineering, Suez Canal University, Egypt. |
| 1996-2002 | Full time demonstrator, Faculty of Petroleum and Mining Engineering, Suez Canal University, Egypt. |

Publications

16 Journal Publications

2 Conference presentations

All publications in the area of
**renewable energy and
desalination**

Research Interests

- Solar desalination techniques
- Design and simulation of solar thermal systems.
- Applications of Renewable Energy
- Energy Engineering

Research Curriculum	
International research projects	<p>1. MATS Project “Multipurpose Applications by Thermodynamic Solar” via EC (FP7- Project No: 268219). -FP7-ENERGY-2010-2-ENERGY CALL PART 2 Topic 2.9-1 Demonstration of innovating multipurpose solar plants.-Role: Partner co-PI, Suez Univ.</p>
Local research projects	<p>1. POWERSUN project “Power Generation from the Sun: Design, Fabrication and Applications of Combined Solar Heat Power System- ID 1372” project with University of Ain Shams via STDF funding organization, Egypt (2010-2012). -Funding: 1.844.240,00 EGP, Science and Technology Development Fund-STDF (Egypt). -Administrative coordinator: Prof. Dr. Sabry Abdel-Mottaleb [PI]. -Period: Two years. -Role: Partner PI-manager, Suez Univ.</p> <p>2-Solar desalination project “Humidification Dehumidification Solar Desalination Process: Design, Fabrication and Applications. Egypt (2000-2002). -Funding: 10000 EGP, Suez Canal University (Egypt). -Administrative coordinator: Prof. Dr. Ahmed Safwat Taha [PI]. -Period: Two years.</p> <p>3- Mobile Unit for Desalination and Electrical generation Project (Mobile unit for the production of energy and water desalination in rural areas). KSA - 37/290 (2016-2018) --Funding: 42000 SAR , Jouf University (KSA). -Administrative coordinator: Dr. Ahmed Mohamed Soliman Hassan [PI]. -Period: Two years.</p> <p>4- HPT Project (Hybrid PV-solar thermal unit for domestic heat and electric generation). KSA - 39/801 (2018-2019) Funding: 20000 SAR , Jouf University (KSA). -Administrative coordinator: Dr. Ahmed Mohamed Soliman Hassan [PI]. -Period: one years.</p>

Publications in international journals with impact factor	<ol style="list-style-type: none"> 1. A. S. Nafey, H. E. S. Fath, S.O. El Helaby, A. M. Soliman (Solar desalination using Humidification - dehumidification processes) Part I theoretical investigation Energy conversion and management 45 (2004) 1243-1261 2. S. Nafey, H. E. S. Fath, S.O. El Helaby, A. M. Soliman, (Solar desalination using Humidification - dehumidification processes) Part II An Experimental investigation Energy conversion and management 45 (2004) 1263-1277 3. Mohy S. Mansour, Norbert Peters, M. Abo-Elenen, M. Morsy and A. M. Soliman. (Experimental study of dissipation structure in turbulent jet). Journal of Mataria Faculty of Eng. July 2010 M1- M18. 4. Mohy S. Mansour, Norbert Peters, M. Abo-Elenen, M. Morsy and A. M. Soliman. (High resolution Rayleigh scattering of dissipation element in turbulent jet) Journal of Mataria Faculty of Eng. July 2010 M19-M30. 5. Mohy S. Mansour, Norbert Peters, M. Abo-Elenen, M. Morsy and A. M. Soliman.
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(Dissipation element analysis of scalar field in turbulent jet flow) Experimental Thermal and Fluid Science 37 (2012) 57-64.

6. A. M. Soliman and M. A. Sharaf (A New Visual Library for Modeling and Simulation of Renewable Energy Desalination Systems (REDS)), Desalination and water treatment Journal. (2013) 1-16.

7. M. Adel Elshat, A. M. Soliman and A. Sharaf (Solar Photovoltaic Modules Modeling Based Design Technique) has been accepted for an oral presentation in Energy technology Track of IAC 2014 International Conference on Industrial Academia 2014 3-5 March.

8. A. M. Soliman and M. A. Sharaf (Study of Using Solar Thermal Power for Margarine Melting Process Heat), Journal of Solar Energy Engineering APRIL 2015, Vol. 137 / 021004-1 ASME,

9. Sayed M. Saleh, Ahmed M. Soliman, Mohamed A. Sharaf, Bhushan Gadgil, Vishal Kale (Influence of solvent in the synthesis of nano-structured ZnO by Hydrothermal method and their application in solar-still) Journal of Environmental Chemical Engineering 5 (2017) 1219–1226

10. Ahmed M. Soliman, Mohamed A. Sharaf Eldean (A Novel Study of Using Oil Refinery Plants Waste Gases for Thermal Desalination and Electric Power Generation: Energy, Exergy & Cost Evaluations) Applied energy (2017).

11. Mohamed A. Sharaf Eldean, Khwaja M. Rafi, A.M. Soliman. (Performance analysis of different working gases for concentrated solar gas engines: Stirling & Brayton). Energy Conversion and Management 150 (2017) 651–668

12. Mohamed A Sharaf Eldean, Adel El Shahat² and AM Soliman, (A new modeling technique based on performance data for photovoltaic modules and horizontal axis wind turbines Wind Engineering 2018.

13. El desouki I. Eid, Red, A. Khalaf- Allaha, Ahmed M. Soliman, Ammar S. Easa Performance of a beta Stirling refrigerator with tubular evaporator and condenser having inserted twisted tapes and driven by a solar energy heat engine (Renewable Energy, Volume 135, May 2019).

14. A. M. Soliman, Mohamed A. Sharaf Eldean & Imed Miraouia (Experimental and Economical Analysis of an Autonomous Renewable Power Supply System for Water Desalination and Electric Generation) Modern Applied Science; Vol. 13, No. 9; 2019.

15. Ahmed M. Soliman, Eman M. Mostafa, Sawsan, A. Mahmoud, Saad M. Desouky and M. S. A. Abdel-Mottaleb (Synthesis and Potential Application of Iron vanadium oxide Hybrid Nanofluid in Flat Plat Prototype Solar Collector) submitted to Renewable energy Journal.

16. Ahmed M. Soliman, Eman M. Mostafa, Sawsan, A. Mahmoud, Saad M. Desouky and M. S. A. Abdel-Mottaleb (Construction and evaluation of solar collector prototypes in different weather conditions) submitted to Solar Energy Journal

Reviewer of international journals	<ul style="list-style-type: none"> 1- Journal of Solar Energy Engineering – ASME 2- International Journal of Ambient Energy- Taylor and Francis 3- Solar Energy - Elsevier
Supervisor of Master thesis	<ul style="list-style-type: none"> 1- An Experimental and Numerical Study of Tubular Solar Still Suez University 2- an Experimental and Numerical Study of Heat Transfer Enhancements in Heat Exchangers Suez University 3- An Experimental Study of Adsorption Cooling System by Using Low Grade Heat Source Suez University
Supervisor of PHD thesis	<ul style="list-style-type: none"> 1- Superheated Steam Generation using Solar System Prototype for recovery of Heavy Oil from Egyptian Reservoirs. Ain Shams Univeristy 2- An Experimental and Numerical Study of Stirling Refrigerator. Suez University