Curriculum Vitae

Khaled Harby Mohamed (Ph. D)

Associate Professor and Interim Department Head,
Mechanical Power Engineering and Energy.
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I. GENERAL DETAILS

Personal Information

Current Position	Associate Professor and **Interim Department Head**, Mechanical Power Engineering and Energy Dept., Minia University.
Contact Address	Mechanical Power Engineering and Energy Dept., Faculty of Engineering, Minia University, 61519, El-Minia, Egypt.
Date of Birth	Jan. 13, 1981.
Nationality	Egyptian.
Military Status	Free.
Marital Status	Married, two kids.

Interested Areas

Extensive and professional experience and in multidisciplinary areas includes:

Energy efficiency and management
Heat and mass transfer
Energy applications and management
Thermo-fluid engineering
Desalination and water resource
Refrigeration and air conditioning.

Thesis Supervision and Examination:

- Oral Examination Committee (4 M.Sc. and 1 Ph.D.)
- Finished supervising thesis (5 M.Sc. and 1 Ph.D.)
- Ongoing supervising thesis (8 M.Sc. and 2 Ph. D.)

Citation and h-index

	Google Scholar	**S**copus	**RG** Score
Citations	235	200	27
h-index	10	9	
Link	https://scholar.google.com/citations?user=TRVX3HYAAAAJ	https://www.scopus.com/authid/detail.uri?authorId=55943274500	https://www.researchgate.net/profile/Khaled_Harby

*Minia University Encouragement Prize Award, Minia University, in Engineering and Technology Sciences (2018)

Academic Qualifications

Degree	Institution	Month/Year
Ph.D.	**Polytechnic University of Valencia, Spain.** Ph.D. in Mechanical Engineering and Energy. Institute for Energy Engineering (IIE). "Thermal-Fluid specialization".	Dec. 2013
M.Sc.	**Polytechnic University of Valencia, Spain.** M.Sc. in Mechanical Engineering and Energy. Official master in "Energy Technology for Sustainable Development". Institute for Energy Engineering (IIE).	Nov. 2010
B.Sc.	**Minia University, Egypt.** B.Sc. in Mechanical Power Engineering and Energy, Faculty of Engineering. General appreciation: First-class honors.	May. 2004

Academic Positions

Position	Institution
2018- Present	**Interim Department Head** Mechanical Power Engineering and Energy Dept., Faculty of Engineering Minia University, Egypt.
2018- Present	**Associate Professor (Scientific Distinction)** Mechanical Power Engineering and Energy Dept., Faculty of Engineering Minia University, Egypt.
2013-2018	**Assistant Professor** Mechanical Power Engineering and Energy Dept., Faculty of Engineering Minia University, Egypt.
2015-2016	**Postdoctoral Fellowship** Institute for Energy Engineering, Polytechnic University of Valencia, Spain Teaching: thermodynamics and fluid mechanics courses for undergraduate students and participated in the TOPMACS project.
2009-2012	**Research assistant and doctoral student** Institute for Energy Engineering, Polytechnic University of Valencia, Spain
2008-2009	**Research assistant** Higher Technical School of Aeronautical Engineers (ETSIA), Polytechnic University of Madrid, Spain. Joined the academic training program and I got some of academic and professional courses (10/2008 to 10/2009).
2004-2008	**Demonstrator** Mechanical Power Engineering and Energy Dept., Minia University, Egypt. Teaching: undergraduate levels courses.

CAREER OBJECTIVE:

To provide high quality solutions to emerging engineering challenges by undertaking continuous research and mentoring of upcoming engineers.

Visiting Professor

- Polytechnic University of Valencia, Institute for Energy Engineering (IIE), Spain, in the period from 15/02/2016 to 15/08/2016.
- Polytechnic University of Madrid, Higher Technical School of Aeronautical Engineers (ETSIA), Spain.

Reviewer for the Peer-Reviewed Journals

- Applied energy. (IF= 7.9)
- Applied thermal engineering. (IF= 3.771)
- International journal of refrigeration. (IF= 3.233)
- Renewable and sustainable energy reviews. (IF= 9.184)
- Sustainable cities and society. (IF= 3.073)
- Journal of power technology. (IF= 0.32)
- Technical Program Committee in the International Conference on Energy and Mechanical Engineering, EME2017, Chengdu, China, 17th-19th, November, 2017. http://www.eme2017.org/?op=committee

II. ACTIVITIES AND AWARDS

Honors and Awards

- Minia University **"Encouragement Prize Award",** Minia University, in in the field of Engineering and Technology Sciences (2018)
- **Postdoctoral fellowship**, in the Institute for Energy Engineering, **Polytechnic University of Valencia**, Spain. 2015-2016.
- Certificates of **Outstanding Contribution in Reviewing Award**. In recognition of the contribution made to the quality of "**Applied Energy", "Applied thermal engineering", 'International journal of refrigeration journal"**, Elsevier in Engineering Sciences, 2017.
- Minia University **Award for International Scientific Publishing** for the following years: 2014, 2015, 2016, 2017, and 2018.
- Best paper award at 2nd International Conference for Environmental Studies, 2014.
- **International scholarship** for M.Sc. and Ph.D. studies funded by **Spanish Ministry of Education and Science** (2009-2012).
- Research assistant position at Higher Technical School of Aeronautical Engineers (ETSIA), Polytechnic University of Madrid, Spain. 2008-2009.
- **Pioneer engineer award** from Egyptian Engineering Syndicate. 2013.
- First of 2004-Class, Dept. of Mechanical Power Eng. & Energy, Minia University.
- Invited speaker in many international conferences and forums.

Activities and Affiliations

- Member of Egyptian Engineering Syndicate, Egypt.
- Member of Minia University Faculties staff, Egypt.
- Member of Faculty of Engineering Council, Minia University.
- Head of Department of Mechanical Power Engineering and Energy.
- Member of Power Engineering Department Council.
- Member of the advisory unit in the Faculty of Engineering, Minia University.
- Member of Environment Affair Committee for Faculty of Engineering, Minia University.
- Member of Postgraduate Committee for Faculty of Engineering, Minia University.
- Member of quality assurance and accreditation program unit, Faculty of Engineering, Minia University.
- Student Member, ASHRAE, 2005.

III. Involvement in Funded Research Projects

Dr. Khaled participated in multidisciplinary international projects, and as a result, many of international peer-reviewed journals are published. The projects focused on the Energy Efficiency Improvements and Fluid Mechanics (multiphase flow) areas as the following:

1. Thermally Operated Mobile Air Conditioning Systems (TOPMACS). The project is partially funded (€2.67 million) by EU-FP6 Sustainable Surface Transport Programm, contract TST4-CT-2005-012471 to development of innovative MAC systems for cars and trucks. The project consortium consists of CRF, IVECO, Valeo and Treibacher AG, as industrial partners and Polytechnic University of Valencia (Spain), CNR-ITAE (Italia), University of Warwick (United Kingdom), Stuttgart University (Germany), and ECN (Netherlands) as research partners.
   DOI: 10.1016/j.energy.2016.09.113
   DOI: 10.1016/j.energy.2016.09.086
   DOI: 10.1016/j.applthermaleng.2016.09.099
2. Submerged horizontal gas jets in stagnant liquid ambient. The project was partially supported by the National of I+D projects MODEXFLAT ENE2013-48565-C2-1-P and ENE2013-48565-C2-2-P.
   DOI: 10.1016/j.ijmultiphaseflow.2017.03.008
   DOI: 10.1016/j.expthermflusci.2014.04.004
   DOI: 10.1016/j.expthermflusci.2013.10.009
3. Renewable energy powered adsorption/desalination system. The project funded and supported by national University. The project carried out to design and test a new hybrid solar ACDS under Egypt's climate conditions.
   DOI: 10.1016/j.desal.2016.12.002
   DOI: 10.1016/j.rser.2015.12.266
   DOI:10.1016/j.energy.2017.04.010

In addition, Dr. Khaled is involved in different national projects and used the department facilities. The main results are published also in different international journals. The projects

focused mainly on the energy efficiency improvements and utilizing sustainable energy resources to decrease the energy consumption in energy systems:

4. Presenting new adsorbent materials for adsorption cooling systems powered by renewable energy. The projects helps to present and investigate the thermos-physical properties and adsorption characteristics of adsorbent pairs to design the solar adsorption cooling systems.
   DOI: 10.1016/j.ijrefrig.2016.01.012
   DOI: 10.1016/j.applthermaleng.2016.03.057
   DOI: 10.1016/j.rser.2015.12.266
5. Energy efficiency improvements in cooling systems. The project aims to improve the heat rejection in cooling systems by using evaporation methods. This leads to increase the system energy efficiency, and therefore decrease the energy consumption.
   DOI: 10.1016/j.rser.2015.12.313
   DOI: 10.1016/j.rser.2017.02.039
6. Solar cell operated thermo-electric a/c systems. The project is completed over a period of two years from 1/2013 to 1/2015 to design and test a solar TECS under Egypt's climate conditions.

IV. PROFESSIONAL EXPERIENCES

International Laboratory Experience

- Thermal Engineering Laboratory, Institute for Energy Engineering, *Polytechnic University of Valencia*, Spain. 2015-2016.
- Helmholtz-Zentrum Dresden-Rossendorf Laboratory (HZDR), Dresden, the Helmholtz Association of German Research Centres, Germany. (February, 2011-August, 2011)
- Nuclear Thermo-Hydraulics Laboratory, Institute for Energy Engineering, *Polytechnic University of Valencia*, Spain. 2009-2012.
- Fluid mechanics, refrigeration and air conditioning, and measurement laboratories, Minia University, Egypt. 2005-2008 and 2013- up till now.

Teaching Experience

Dr. Khaled have more than 12 years of teaching and research experiences. In addition to the duties as an assistant professor (full time) in the mechanical power engineering and energy department at Minia University, I have a teaching experience at the following universities:

- Institute for Energy Engineering, *Polytechnic University of Valencia*, **Spain**. Undergraduate students. One semester, 2015-2016, (Full time).
- Faculty of Engineering, South Valley University, Quena, Egypt. 2014-2017, (Part time).
- Faculty of Industrial Education, Sohag University, Sohag, Egypt. 2013-2017, (Part time).

Undergraduate Courses Taught at Minia University (Multiple Times)

Fluid mechanics (MPE 216), Renewable energy (MPE 221), Heat and mass transfer (MPE 312), Thermodynamics (MPE 223), Refrigeration and air conditioning systems (MPE 411),

Fundamental of measurements and instrumentation (MPE 215), Energy Engineering and Environment Science (MPE 329), and Fluid mechanics lab (MPE 323).

Postgraduate Courses Taught at Minia University (Multiple Times)

Fluid mechanics, Renewable energy, Measurement and control, Advanced thermodynamics, Power plant, Types and performance analysis of power plants, and Advanced thermodynamics.

Undergraduate Courses Taught at Polytechnic University of Valencia, Spain

Thermodynamics and Fluid mechanics.

Undergraduate Courses Taught at South Valley University

Renewable energy, Fluid mechanics, and Environment pollutions.

Undergraduate Courses Taught at Sohag University

Thermodynamics, Heat and mass transfer, Fluid mechanics, and Refrigeration and air conditioning systems.

Postgraduate Courses Taught at Sohag University (Multiple Times)

Renewable energy, Thermodynamics, and Heat and mass transfer.

***Note:* Able to teach other courses and develops new courses.**

Establishment and Development of Laboratories

During the last years, from January 2013 tell now, Dr. Khaled used the available fund from the different projects and university to prepare a laboratory for investigation new adsorption pairs, design new thermally driven cooling systems powered by renewable energy, improving the efficiency of the adsorption cooling system powered by renewable energy, and presenting an adsorption cooling system with a novel heat source.

International Short Courses and Workshop

Attended the following international workshop (participation with certificates):

- Develop applications for the acquisition and processing of data and system monitoring using LabVIEW program. *Polytechnic University of Valencia*, Spain. 20.11.2009 - 28.11.2009.
- Numerical solution of fluid dynamics problems, Partial differential equations, Methods of perturbations in fluid mechanics and Stratified turbulent flows, Higher Technical School of Aeronautical Engineers. *Polytechnic University of Madrid*, Spain. 2008-2009.
- Introduction to energy technology, Energy markets, Hydrogen as energy, The energy problem and sustainable development, Distribution networks and micro-networks, Heat

pump, Wind energy, Solar energy, Nuclear waste: Storage and transmutation, Biomass, Institute for Energy Engineering. *Polytechnic University of Valencia*, Spain. 2009-2010.

- Summer training "Sugar Factory", Egypt. 2003.

Training Courses

Attended a training program for "Faculty and Leadership Development Project:

- Scientific publications (October 2016).
- Creation a personal website (October 2016).
- Examination Methods and Students Evaluation (October 2016).
- Strategic Planning (November 2016).
- Preparing, writing and publishing a scientific paper (July 2007).
- Skills of thinking (July 2007).
- Effective communication skills (June 2007).
- Effective management of time and work pressures (February 2007).

Computer Skills

- Proficient in Microsoft package, ICDL (V5).
- Strong knowledge of; AutoCAD, Lab View, MatLab, FORTRAN, PLC, Fluent, TRANSYS, REFPROP9, CFD, and Visio Technical.
- HTML, and Internet browser and search.

Languages

- Arabic (native language),
- English (very good),
- Spanish (very good), five years stay in Spain.
- Italian (good).

V. THESIS SUPERVISION AND EXAMINATION Committee

Dr. Khaled regularly participates in PhD and M.Sc. supervisory committees, thesis defenses, and candidacy examinations.

Oral Examination Committee (Ph. D and M.Sc.) at Minia and Sohag Universities

1. Ehab Salah - Mechanical Power Eng. and Energy Dept., Faculty of Engineering, Minia University (Ph.D. 2018)
2. Youssef Gamal Nasr - Mechanical Power Eng. and Energy Dept., Faculty of Engineering, Minia University (M.Sc. 2018)
3. Ahmed Sayed Al-Seman - Mechanical Eng. Dept., Faculty of Industrial Education Engineering, Sohag University (M.Sc. 2016)
4. Mohamed Ghazi - Mechanical Eng. Dept., Faculty of Industrial Education Engineering, Sohag University (M.Sc. 2016)

5. Mohammed Mahmoud Mohammed - Mechanical Eng. Dept., Faculty of Industrial Education Engineering, Sohag University (M.Sc. 2016).

Ph.D. Supervision Committee

1. Ehab Salah Ali, Thesis title "Analytical and experimental study of an adsorption based desalination system powered by solar energy". Completed 2018.
2. Mohamed Hamdy Mahmoud, Thesis title "Experimental and theoretical study on an adsorption air conditioning system powered by waste heat recovery from an internal combustion engines". From 2014. In progress.
3. Assem Ahmed Hassan Ashwan "Optimization and performance improvement of a solar powered adsorption cooling system employing activated carbon/hydrocarbon pairs". From 2018. In progress.

M.Sc. Supervision Committee

1. Youssef Gamal Nasr, Thesis title "Modulating capacity control in vapor compression cycle working with HFC/HC". (Completed 2018)
2. Mostafa Mahmoud, Thesis title "Experimental and analytical study of the performance of a thermoelectric air conditioning system driven by solar cells". (Completed 2017)
3. Ahmed Sayed Al-Seman, Thesis title "Experimental and theoretical study of a hybrid adsorption cooling-desalination system powered by solar energy". (Completed 2016)
4. Mohamed Ghazi, Thesis title "Theoretical and experimental investigation on the performance improvement of a two-bed adsorption refrigeration system driven by solar energy". (Completed 2016)
5. Mohammed Mahmoud, Thesis title "Experimental and theoretical study on performance of an adsorption cooling system employing Activated Carbon/R-407C pair". (Completed 2016)
6. Mohamed Hosni Ameen, Thesis title "Energy and exergy analyses on the performance of a thermal power plant". (Since 2014)
7. Doaa Raefat Mahgob, Thesis title is "Theoretical and experimental investigation on improving the performance of a residential refrigeration system using an evaporative condenser". (Since 2014)
8. Abd El-Nasser Ali, Thesis title "An experimental study of free non-premixed flame characteristics of a chamber with honeycomb inlet". (Since 2014)
9. Ramadan Hosny, Thesis title "Energy and exergy analyses on the performance of a thermal power plant of Quena". (Since 2015).
10. Ali Kamel Abd Aziz, Thesis title "Effect of nano-scale sizing on the adsorption characteristics of adsorbent materials". (Since 2015)
11. Mohey El-deen Ibrahim, Thesis title "Adsorption characteristics of HFC-440A onto activated carbon for cooling applications". (Since 2016)
12. Ahmed Hamdy, Thesis title "An investigation on the performance improvement of an adsorption based desalination system powered by low grade heat source". (Since 2017)

13. Mona Mohamed, Thesis title "Performance of a small capacity refrigeration system with an evaporative cooled condenser". (Since 2017).

Senior Level Graduation Projects

1. Design and Experimental Investigation of an Adsorption Cooling System Powered by Low-Grade Heat Source. Minia University. 2017/2018.
2. Applications in renewable energy: Solar water pump and biomass combustion in fluidized bed boiler. South Valley University. 2016/2017.
3. Theoretical and experimental investigation of hydrocarbons to replace R-134a in an automotive air conditioning system under real driving conditions. Minia University. 2016/2017.
4. Experimental and theoretical study of the characteristics of submerged vertical gas jets in water ambient (Gained the third in the innovation day 3). Minia University. 2013/2014.
5. Design and development of a photovoltaic system-powered domestic refrigerator. Sohag University. 2013/2014.
6. Design a hybrid adsorption cooling-desalination system. Sohag University. 2014/2015.
7. Design a tow-bed adsorption refrigeration system using Activated carbon/R-143a. Sohag University. 2014/2015.
8. Design and test of a solar-driven thermoelectric air-conditioning system. Sohag University. 2014/2015.

VI. PUBLICATIONS

Books

1. **Khaled Harby Mohammed**, (2014), Experimental and theoretical study on the liquid and gas jets, LAP LAMBERT Academic Publishing (April 8, 2014), Germany ISBN-13: 978-3-659-367724 & ISBN-10: 3659367729. https://www.amazon.com/Experimental-Theoretical-Study-Liquid-Jets/dp/3659367729
2. **Khaled Harby Mohammed**, Renewable Energy (Types, Advantages and Limitations), 1st and *2nd Editions in 2015 and 2016*. A text book for the Final-year students, Mechanical engineering Dept., Faculty of Engineering, South Valley University.
3. **Khaled Harby Mohammed**, (2016), Fluid Mechanics part (I) and part (II). A text book for the second-year students, Mechanical engineering Dept., Faculty of Engineering, South Valley University.

International Journals (Peer-Reviewed Journals)

H-Index: 10 (Scopus), Total Citations: 235 (Google Scholar), and RG Score: 27

1. **K. Harby**, Hydrocarbons and their mixtures as alternatives to environmental unfriendly halogenated refrigerants: An updated overview, *Renewable and Sustainable Energy Reviews.* 73 (2017) 1247-1264. (Impact Factor (IF): 9.184)

2. Ehab S. Ali, Ahmed A. Askalany, **K. Harby**, Mohamed R. Diab, Ahmed S. Alsaman, Adsorption desalination-cooling system employing copper sulfate and driven by low grade heat sources, *Applied Thermal Engineering.* 136 (2018) 169-176. (IF): 3.771)
3. **K. Harby**, S. Chiva and J.L Muñoz-Cobo, Modelling and experimental investigation of horizontal buoyant gas jets injected into stagnant uniform liquid ambient, *International Journal of Multiphase Flow.* 93 (2017) 33-47. (IF: 2.592)
4. Ahmed S. Alsaman, A. Askalany, **K. Harby**, M.S. Ahmed, Performance evaluation of a solar-driven adsorption desalination-cooling system, *Energy.* 128 (2017) 196-207. (IF: 4.968)
5. Ehab S. Ali, **K. Harby,** A. Askalany, Mohamed R. Diab, Ahmed S. Alsaman, Weather effect on a solar powered hybrid adsorption desalination-cooling system: A Case Study of Egypt's Climate, *Applied Thermal Engineering.* 124 (2017) 663-672. (IF: 3.771)
6. Mohamed Ghazy, **K. Harby,** A. Askalany, and M.S. Ahmed, Innovative double effect heat exchanger of an adsorption cooling system powered by solar energy. *Applied Thermal Engineering.* In Press, Accepted Manuscript (IF: 3.771)
7. M. Verde, **K. Harby**, J.M. Corberán, Optimization of thermal design and geometrical parameters of a flat tube-fin adsorbent bed for automobile air-conditioning, *Applied Thermal Engineering.* 111 (2017) 489-502. (IF: 3.771)
8. Ehab S. Ali, Ahmed S. Alsaman, **K. Harby**, A. Askalany , Mohamed Refaat Diab, Sobhy M. Ebrahim Yakoot, Recycling brine water of reverse osmosis desalination employing adsorption desalination: A theoretical simulation, *Desalination.* 408 (2017) 13-24. (IF: 6.603)
9. M. Verde, **K. Harby**, Robert de Boer, J.M. Corberán, Performance evaluation of a waste-heat driven adsorption system for automotive air-conditioning: Part I- Modeling and experimental validation, *Energy.* 116 (2016) 526-538. (IF: 4.968)
10. M. Verde, **K. Harby**, Robert de Boer, J.M. Corberán, Performance evaluation of a waste-heat driven adsorption system for automotive air-conditioning: Part II- Performance optimization under different real driving conditions, *Energy.* 115 (2016) 996-1009. (IF: 4.968)
11. Mohamed Ghazy, **K. Harby**, A. Askalany and Bidyut B. Saha, Adsorption isotherms and kinetics of activated carbon/difluoroethane adsorption pair: theory and experiments, *International journal of refrigeration.* 70 (2016) 196-205. (IF: 3.233)
12. **K. Harby**, Doaa R. Gebaly, Nader S. Koura, Mohamed S. Hassan, Performance improvement of vapor compression cooling systems using evaporative condenser: An overview, *Renewable and Sustainable Energy Reviews.* 58 (2016) 347-360. (IF: 9.184)
13. Mohamed Ghazy, A. Askalany, **K. Harby**, and M.S. Ahmed, Adsorption isotherms and kinetics of HFC-404A onto bituminous based granular activated carbon for storage and cooling applications, *Applied Thermal Engineering.* 105 (2016) 639-645. (IF: 3.771)
14. Ahmed S. Alsaman, A. Askalany, **K. Harby** and M.S. Ahmed, A state of the art of hybrid adsorption desalination-cooling systems, *Renewable and Sustainable Energy Reviews.* 58 (2016) 692-703. (IF: 9.184)
15. M.M. El-sharkawy, A. Askalany, **K. Harby** and M.S. Ahmed, Adsorption isotherms and kinetics of a mixture of Pentafluoroethane, 1,1,1,2-Tetrafluoroethane and

Difluoromethane (HFC-407C) onto granular activated carbon, *Applied Thermal Engineering*. 93 (2016) 988-994. (IF: 3.771)

16. M. Hamdy, A. Askalany, **K. Harby** and Nader Koura, An overview on adsorption cooling systems powered by waste heat from internal combustion engine, *Renewable and Sustainable Energy Reviews.* 51 (2015) 1223-1234. (IF: 9.184)
17. **K. Harby**, S. Chiva and J.L Muñoz-Cobo, An experimental study on bubble entrainment and flow characteristics of vertical plunging water jets, *Experimental Thermal and Fluid Science.* 57 (2014) 207-220. (IF: 3.204)
18. **K. Harby**, S. Chiva and J.L Muñoz-Cobo, An experimental investigation on the characteristics of submerged horizontal gas jets in liquid ambient, *Experimental Thermal and Fluid Science.* 53 (2014) 26-39. (IF: 3.204)
19. Moustafa M. Abo Elmaaref, **K. Harby**, A. Askalany, M. Salem, Design and performance analysis of a solar-driven thermoelectric air-conditioning system under Egypt climate conditions, S*olar Energy.* Under review. (IF: 4.374)

International Conferences

1. **K. Harby**, El-Sadek H. Nour El-deen, Solar-powered adsorption cooling system: A case study on the climatic conditions of Al Minya, *The 20th International Conference on Future Environment and Energy (ICFEE-2018)*, 13:14 August 2018, **Prague, Czechia**.
2. El-Sadek H. Nour El-deen, **K. Harby**, Performance assessment and improvement of a waste-heat powered adsorption-desalination with heat and mass recovery modes, *The 4th International Conference on Energy Engineering (ICEE4-2017), 26:28 December 2017, Aswan, Egypt.*
3. Ramadan. H, **K. Harby**, Hussein M Maghrabie, M. Attalla, Exergy analysis of cogeneration power plant in paper industry, *The 4th International Conference on Energy Engineering (ICEE4-2017), 26:28 December 2017, Aswan, Egypt.*
4. Ahmed S. Alsaman, Ehab S. Ali, **K. Harby**, A. Askalany, Performance improvement of a solar driven adsorption desalination system by heat recovery operation, 20th *International Water Technology Conference* (IWTC20-2017) 18:20 May 2017, Hurghada, Egypt.
5. Ehab S. Ali, Ahmed S. Alsaman, **K. Harby**, A. Askalany, Mohamed Ghazy, Innovated double effect adsorber heat exchanger for adsorption desalination system, 20th *International Water Technology Conference* (IWTC-2017) 18:20 May 2017, Hurghada, Egypt.
6. A. Askalany, Mohamed Ghazy, **K. Harby**, Innovative double effect heat exchanger of an adsorption cooling system, *IVth International Symposium on Innovative Materials for Processes in Energy Systems* (IMPRES-2016) 23:26 October 2016, Taormina, Sicily, **Italy**.
7. Ehab S. Ali, Ahmed S. Alsaman, A. Askalany, **K. Harby**, M.R. Diab, Adsorption isotherms of water vapor on Aluminum sulfate. *IVth International Symposium on Innovative Materials for Processes in Energy Systems* (IMPRES-2016) 23:26 October 2016, Taormina, Sicily, **Italy**.

8. **K. Harby**, S. Chiva and J.L Muñoz-Cobo, Study of the influence of nozzle length and jet angles on the air entrainment by plunging water jets, 16th International Conference on Fluid Dynamics and Thermodynamics (ICFDT-2014), October 27:28, 2014, Barcelona, **Spain**.
9. **K. Harby**, Mohamed Ghazy, A. Askalany, Adsorption characteristics of activated carbon/HFC-152a pair for solar adsorption cooling systems, ***3rd*** *International conference on Energy Engineering* (ICEE-2015**)**, 28:30 December 2015, Aswan, Egypt.
10. **K. Harby,** Youssef G. Nasr, El-Sadek H. Nour El-deen and A. M. El-Kersh, Hydrocarbons as alternatives to the environmental harmful refrigerants, ***3rd*** *International conference on Energy Engineering* (ICEE-2015**)**, 28:30 December 2015, Aswan, Egypt.
11. Ahmed S. Alsaman, Ehab S. Ali, A. Askalany, **K. Harby**, Mohamed R. Diab, Simulation model for silica gel-water adsorption cooling system powered by renewable energy, *3rd International conference on Energy Engineering* (ICEE-2015), 28:30 December 2015, Aswan, Egypt.
12. Moustafa M. Abo Elmaaref, **K. Harby**, A. Askalany, M. Salem, Solar thermoelectric cooling technologies: An overview, *3rd International conference on Energy Engineering* (ICEE-2015), 28:30 December 2015, Aswan, Egypt.
13. A. Askalany, Mohamed A. Essa**, K. Harby**, Simulation study of weather effect on a solar powered adsorption cooling system: A case study for Aswan climate, *3rd International conference on Energy Engineering* (ICEE-2015), 28:30 December 2015, Aswan, Egypt.
14. A. Askalany and **K. Harby**, Advancements in Desalination: adsorption desalination systems overview. *2nd International Conference of Environment Studies*, South Valley University, Hurghada - 19:21 August 2014. The best paper award.

VII. REFEREES

- **Prof. José Miguel Corberán,** Professor and Director of the Institute for Energy Engineering, Polytechnic University of Valencia, Spain. Email: energeti@upvnet.upv.es.
- **Prof. Ramadan Bassiouny**, Professor and Dean of Faculty of Engineering, Minia University, Egypt. Email: ramadan9@yahoo.com.
- **Prof. Jose Luis Muñoz-Cobo,** Professor and Department head of Chemical and Nuclear Engineering, Universidad Politécnica de Valencia, PO Box 22012, 46071 Valencia, Spain. Email: jlcobos@iqn.upv.es
- **Prof. Abd Elnaby Kabeel,** Professor and Department head of Mechanical Engineering Department, Faculty of Engineering, Tanta University, Egypt, E-mail: Kabeel6@hotmail.com

"Certificates and Recommendation Letters are Available upon Request"