

Tamer T. N. Khatib, *Ph.D, M.Sc., B.Sc.*

Assistant Professor of Renewable Energy at An-Najah National University

1. PERSONAL INFORMATION

* Nationality: Palestinian	* Date of birth: 31/03/1985	* Place of birth: Nablus
* Gender: Male	* Marital status: Married	* Number of children: 1

2. WORKING EXPERIENCE

[8/2015 - Present]	Assistant Professor Energy Engineering & Environment Dept., An-Najah National University, Palestine
[11/2014 - 12/2014]	Visiting Lecturer Department of Electrical Engineering, National University of Malaysia, Malaysia
[9/2013- 6/2015]	Senior Researcher & Academic Staff Inst. of Networked & Embedded System, University of Klagenfurt (KLU), Austria
[7/2013- 9/2013]	Part Time Lecturer Faculty of Engineering, Palestine Technical University (PTU-K), Tulkarm, Palestine
[6/2013 - 7/2013]	Visiting Technical Advisor Sunergy for Renewable Solutions, Ramallah, Palestine
[11/2012 - 6/2013]	Researcher Faculty of Engineering, Sohar University (SU), Sultanate of Oman
[9/2011 - 2/2012]	Part Time Lecturer Faculty of Electrical Eng., Universiti Teknologi MARA (UiTM), Malaysia
[6/2008 - 12/2008]	Electrical Engineer Fury Trade Ltd., Nablus, Palestine

3. EDUCATION

[1/2011 -6/2013]	Ph.D. in Electrical, Electronic and Systems Engineering National University of Malaysia (UKM), Bangi, Malaysia <i>Specialization: Photovoltaic Power Systems</i> <i>Thesis title: Solar energy prediction and photovoltaic system size optimization using artificial neural networks and numerical algorithms</i>
[1/2009 - 8/2010]	M.Sc. in Electrical, Electronic and Systems Engineering National University of Malaysia (UKM), Bangi, Malaysia <i>Specialization: Photovoltaic Power Systems</i> <i>Thesis title: Efficient maximum power point tracking controller and sun tracker for standalone photovoltaic systems</i>
[9/2003 - 6/2008]	B.Sc. in Electrical Engineering An-Najah National University(ANNU), Nablus, Palestine <i>Specialization: Electrical Power & Energy Systems</i> <i>Graduation Project title: Development of a photovoltaic I-V characteristic tester</i>
[9/2002 - 7/2003]	Secondary School Degree Qadri Tuqan Secondary School, Nablus , Palestine

3.1 Training courses

[23 - 24, 11/ 2011]	CIRED, Malaysia, <i>Intensive Renewable Energy workshop</i>
[15 - 16, 7/ 2009]	BIZCHIP, Bangi, Malaysia, <i>Intensive PIC Workshop</i>
[6/2007 - 8/2007]	JEPCO, Amman, Jordan, <i>Trainee in electrical power stations section</i>
[10/6 - 20/7/2006]	Electricians Union, Nablus, Palestine, <i>Electrical Control</i>
[1/2006 - 2/2006]	PalTel, Nablus, Palestine, <i>Trainee in electrical power division</i>
[24/11 - 15/1/2006]	AMRA, Nablus, Palestine, <i>CompTIA Network Technician</i>
[20/3 - 9/6/2005]	An-Najah National University, Nablus, Palestine, <i>AutoCAD</i>

4. PATENTS/ PRODUCTS

[1] H. Kazem, **T. Khatib**. 2013. "REPS.OM" Renewable Energy Power Systems Optimization Tool For Oman. (Accepted and Declared, Ref No. is Pending)

[2] **T. Khatib**, A. Mohamed, K. Sopian. 2012. PV.MY "Photovoltaic system optimization and simulation tool". Malaysia patent (Accepted and Declared, Ref No. is Pending)

5. PUBLICATION

Highlights : I. # of published articles: 75 (**53% SCI/ISI indexed, 61% first author**) , # of citations received: **510**

II. The Quartile percentage of the SCI/ISI indexed articles in *Energy & Fuels* category: **Q1:15%, Q2:33%, Q3:31%, Q4:21%**

III. Published articles Type: *Full research*: **66%**, *Technical notes*: **0.0%**, *Reviews*: **8.0%**, *Conference*: **23%**, *Book*: **3.0%**.

IV. Citation records are according to SCOPUS, * **h Index: 13**, **i10 Index:18** * SCOPUS Author ID 31767521400

5.1 Selected research articles published in SCI/ISI indexed international journals

Note: Full publication list can be provided upon request

[*] **T. Khatib**, W. Elemenreich. Novel simplified hourly energy flow models for photovoltaic power systems. *Energy conversion and Management*. 2014. 79(): 441-448. **IF:3.59, Q1**

[*] **T. Khatib**, K. Sopian, H. Kazem. Actual performance and characteristic of a grid connected photovoltaic power system in the tropics: A short term evaluation. *Energy Conversion and Managment*. 2013 71():115-119. **IF: 2.64, Q2**

[*] **T. Khatib**, A. Mohamed, K. Sopian. A Review of photovoltaic systems size optimization techniques. *Renewable and Sustainable Energy Reviews*. 2013. 22(): 454-465. **IF:6.2, Q1**

[*] **T. Khatib**, A Mohamed, K Sopian, M Ibrahim. Sizing of a wind charger at minimum cost for remote housing electrification: a case study for nine coastal sites in Malaysia. *J. of Energy & Buildings*. 2012. 51(C): 185-190 **IF: 2.3, Q2**

[*] **T. Khatib**, A Mohamed, K Sopian. A review of solar energy modeling techniques. *J. of Renewable & Sustainable Energy Reviews*. 2012.16(5): 2864-2869. **IF: 5.3, Q1**.

[*] **T. Khatib**, A. Mohamed, K. Sopian. Optimization of a PV/wind micro-grid for rural housing electrification using a hybrid iterative/genetic algorithm: case study of Kuala Terengganu, Malaysia. *J. of Energy & Buildings*. 2012. 47(C):321-331 **IF: 2.3, Q2**.

[*] **T. Khatib**, A Mohamed, K Sopian, M Mahmoud. Optimal sizing of building integrated hybrid PV/diesel generator system for zero load rejection for Malaysia. *J. of Energy & Buildings*. 2011.43(12): 3430-3435. **IF: 2.3, Q2**.

[*] **T. Khatib**, A, Mohamed, M. Mahmoud, K. Sopian. Modeling of daily solar energy on a horizontal surface for five main sites in Malaysia. *J. of Green Energy*. 2011. 8(8): 795-819 **IF: 0.74, Q3**.

5.2 Books:

5.2.1 Scientific books

[1] H. Kazem, **T. Khatib**. 2013. Photovoltaic power systems prospective in Oman: Technical and Economical Study. LAP LAMBERT, Saarbrücken, Germany. ISBN: 978-3659372957.

[2] **T. Khatib** & A. Mohamed. 2010. High efficient standalone photovoltaic power system. LAP LAMBERT, Saarbrücken, Germany. ISBN: 978-3843377171.

Note: This book has been accredited as a textbook for a master course entitled "Driving a PV system by digital computer" at "University of Science and Technology of Oran", Algeria, 2012

5.2.2 Literary books

[1] **Tamer Khatib, Co-author**. 2012. رغبة إكمال "Desire for Completion". WARD, Jordan. ISBN: 427-1-2011

[2] **Tamer Khatib**. 2012. وقفة على الأثواب "A stand on throns". Xlibris. Australia. ISBN: 1465301364

6. ACADEMIC EXPERIENCE

6.1 Teaching Interests

* Photovoltaic Power Systems | M.Sc. & B.Sc. Levels

* Solar Energy Fundamentals | M.Sc. & B.Sc. Levels

* Modeling of Renewable Energy Systems | M.Sc. & B.Sc. Levels

* Renewable Distributed Generation | M.Sc. & B.Sc. Levels

* Power Electronic for Renewable Energy | B.Sc. Level

* Wind Power Systems | B.Sc. Level

* Introduction to Renewable Energy | B.Sc. Level

6.2 Courses i have taught:

* Modeling and Simulation of Renewable Energy Systems | (2 times) | KLU | M.Sc. Level.

* Photovoltaic systems: Theory and Design | (1 time) | UKM | MSc. Level.

* Introduction to Renewable Energy | (2 times) | UiTM, PTUK | B.Sc. Level.

* Electrical & Electronic Circuits Lap | (4 times) | UKM, PTUK | B.Sc. Level.

6.3 Training courses/Workshops i have delivered:

HOMER software (3 times), PV systems optimization (4 times), RETscre software (1 time)

6.4 Invited public lectures

- * AI techniques for photovoltaic systems, 2014, UKM, Malaysia
- * Modeling of Solar Energy using ANN, 2014, IEEE ISGT2014, Malaysai
- * Photovoltaic System Reliability, 2014, National University of Malaysia, Malaysia
- * Renewable Energy for Peace, 2014, Lakeside Science & Technology Park, Austria
- * Energy Policy and Social Aspects, 2013, University of Klagenfurt, Austria
- * Introduction to Photovoltaic Systems, 2013, Birzeit Uni., Palestine | Uni. of Klagenfurt, Austria
- * How to Publish a Research Paper, 2012, National University of Malaysia, Malaysia
- * Introduction to Renewable Energy, 2011, National University of Malaysia, Malaysia

7. RESEARCH EXPERIENCE

7.1 Research interests

My research interests mainly fall in the scope of photovoltaic systems and solar energy fundamentals. These interests include PV systems design and optimization, modeling and control of PV systems, hybrid PV/Wind systems, hybrid PV/diesel systems, Grid connected PV systems, sun trackers, MPPT technology, inverters in PV system, solar chargers, solar energy prediction, AI applications for solar energy and PV systems, wind power systems, wind chargers, wind energy modeling and prediction.

7.2 Research theses supervised

7.2.1 Current researches

- [1] Optimization and Control of solar water pumping systems. Ph.D. Thesis. Tenaga National University, Malaysia. Co-Supervisor
- [2] Optimum operational control of pv/diesel/battery system operation using heuristic techniques. Ph.D. Thesis. Tenaga National University, Malaysia : Co-Supervisor

7.2.2 Conducted Researches

- [1] Data modeling using artificial intelligence techniques: A case study with solar irradiance data. M.Sc. Thesis. Government College University, Pakistan: Co-Supervisor
- [2] Development of a mathematical model for temperature elements & techno-economical analysis of PV system performance in the tropics, Ph.D. Thesis, 2014, Universiti Putra Malaysia: Co-Supervisor
- [3] An improved maximum power point tracking controller for PV systems using artificial neural network, Master Thesis, 2012, Tenaga National University, Malaysia: Co-Supervisor
- [4] B.Sc. Graduation projects in the field of Solar Energy and PV systems. Projects supervised: 6

7.3 Research grants, Total amount: 1,982,981.00 USD

- [1] Modeling and Engineering of Self-Organizing Networks (MESON), Lakeside labs GmbH, Austria, (3.5 years), 428,853 USD Research team member
- [2] Smart Microgrid Lab Project, Lakeside labs, Austria GmbH, 2013 (2 years), 802,500 USD Research team member
- [3] MONERGY - ICT solutions for energy saving in Smart homes, Lakeside labs GmbH, Austria, 2013 (2.5 years), 587,628 USD, Research team member
- [4] Feasibility of Solar Energy (Photovoltaic) Systems in Oman, The Research Council, Oman, 2012 (2 years), 164,000 USD, Research team member

7.4 Consultancy

- [1] The Scientific Research Support Fund, Jordan. 2013, *Research proposals assessor*
- [2] University of Majmaah, Kingdom of Saudi Arabia. 2013, *Research proposals assessor*
- [3] Kuwait Institute for Scientific Research, Kuwait. 2012, *Research collaborator*
- [4] National Energy Company, Malaysia. 2012, *Technical consultancy & Training*
- [5] National University of Malaysia, Malaysia. 2011, *Technical consultancy & Training*

7.5 Scientific editing

[10/2014 - Present] Guest Editor, IEEE Transactions on Industrial Electronics, USA

7.5.1 Served as a member of the scientific committee for 22 international conferences

7.6 Scientific reviewing:

Since 2010 I have reviewed 200 research articles for many ISI indexed journals such as:

- * *Elsevier Jourlas*: Solar Energy, Energy Conversion and Management, Renewable Energy, Renewable and Sustainable Energy Reviews, Applied Energy, Sustainable Energy Technologies and Assessments, Energy Reports.
- * *Taylor and Francis Journals*: Int. Journal of Green Energy, Electric Power Components and Systems
- * *ASME Journals*: Solar Energy Engineering
- * *AIP Journals*: Journal of Renewable & Sustainable Energy
- * *Wiley Journals*: International Transactions on Electrical Energy Systems
- * *Hindawi Journals*: Internatioanl Journal of Photoenergy
- * *IEEE Transactions*: IEEE Transaction on Smart Grid, IEEE Transactions on Industrial Electronics

8. AWARDS

- [1] Best Reviewer Award. Renewable Energy Journal/ Elsevier. 2014
[2] The golden medal of international conference and exposition on invention of institution of higher learning (PECIPTA2013), PV.MY software. Kuala Lumpur. 2013
[3] National University of Malaysia Research Fellowship, 2011-2013 : 40,000.00 USD
[4] National University of Malaysia Research Fellowship, 2009-2010 : 10,000.00 USD

9. VOLUNTARY WORK

- [2/2012 - 1/2013] **Vice Chairman**, Postgraduate Students Committee, UKM, Malaysia
[1/2011 -3/2012] **Vice Chairman**, IEEE UKM branch, UKM, Malaysia

10. LANGUAGES

- * Arabic, Native Speaker
- * English, IELTS 7.9, Equivalents to 100\120 TOEFL "Internet Based"
- * Malay, Moderate
- * German, Moderate

11. PROGRAMMING LANGUAGES& SOFTWARES

MATLAB,C++, VB, ASSEMBLY, HOMER, RETScreen, TRANSIS, PSCAD, POWER WORLD SIMULATOR, PV.MY

12. MEMBERSHIPS

Member of The International Solar Energy Society, Germany (4 Years)
Member of IEEE Power & Energy Society, USA (4 Years)
Member of Institute of Electrical and Electronic Engineering (IEEE), USA (6 Years)
Member of Palestine Solar & Sustainable Energy Society, Palestine (5 Year)
Member of Jordanian Engineers Association, Jerusalem Center,Palestine (7 Years)

13. OTHER SKILLS

- * A good knowledge in computer hardware/software equivalent to ICDL & A+
- * Have had a driving license since 2003

14. REFERENCES

Prof. Dr. Wilfried Elmenreich, *University of Klagenfurt, Austria*

**Email: wilfried.elmenreich@aau.at *Contact Number:+4346327003649 *Relationship: Employer (KLU)*

Prof. Dr. Hussian Kazem, *Sohar University, Oman*

**Email: h.kazem@soharuni.edu.om *Contact Number: 0096899645363 *Relationship: Employer (SU)*

Prof. Dr. Kamaruzzaman Sopian, *Solar Energy Research Institute, Malaysia*

**Email: ksopian@eng.ukm.my *Contact Number: 0060193375785 *Relationship: Ph.D Co-supervisor*

Prof. Dr. Azah Mohamud, *National University of Malaysia, Malaysia*

*Email: azah@eng.ukm.my *Contact Number: 0060122137946 *Relationship: M.Sc. & Ph.D supervisor*

Prof. Dr. Marwan Mahmoud, *An-Najah National University, Palestine*

*Email: marwanma@najah.edu *Contact Number: 00972599288263 *Relationship: B.Sc. supervisor*

15. APPENDICES

- 15.1 "What can I do for your corporation" letter
- 15.2 "Detailed job description" letter for the former positions i hold
- 15.3 "Full publication list"

