# ISMAEL AL-HINTI PhD, CEM, CMVP, BEP

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#### **Summary**

Dr. Ismael Al-Hinti is a professor, a passionate educator, an entrepreneur, and a recognised energy expert. He combines eighteen years of academic research and teaching experience, with an exceptional industrial track record.

Dr. Al-Hinti received his Ph.D. in Mechanical Engineering in 2002 from Queen's University Belfast, UK. His Ph.D. research was supported by Ford Motor Company, and later received a research grant from General Motors for his post-Doctoral research at the same university. In 2003 he joined the Mechanical Engineering Department at the Hashemite University and later served as Head of the Department during the period between 2006 and 2008. The success on the department level promoted Dr. Al-Hinti in 2007 to become the Director of the Centre for Academic Quality Assurance at the same university. In this position he became in charge of coordinating and supervising quality assurance, accreditation, strategic planning, faculty development, and faculty assessment activities and programs throughout the university. In 2011 he joined the School of Applied Technical Sciences at the German Jordanian University as an Associate Professor. Through his position as Department Head between 2011 and 2014, he led the reform process of the Mechanical & Maintenance Engineering Department and the adoption of a new study program.

Beside his rich academic experience, Dr. Al-Hinti is also a renowned expert and national leader in the fields of in energy management, energy auditing, measurement & verification, and renewable energy applications. He authored/co-authored 32 research papers in international energy journals, and received several local and international awards and research grants. In addition, he supervised the design and installation of grid-connected and off-grid solar photovoltaic projects in Jordan with a total capacity exceeding 11,000 kW<sub>p</sub> and managed over 35 energy audits for industrial facilities and office buildings in Jordan, Kuwait, and Saudi Arabia. Dr. Al-Hinti has a proven track record for developing and conducting capacity building and training programs in energy management and renewable energy for high profile regional clients, and is an authorized trainer by the Association of Energy Engineers (AEE) for its CEM, CMVP, BEP courses and examinations. In 2016, Dr. Al-Hinti received special recognition from the AEE as a "Legend in Energy". He is currently the elected Vice Chairman of the Jordan Green Building Council and is active in a variety of professional organizations and institutions.

#### **Personal Information**

Nationality Jordanian

Marital Status Married with three children

Date of Birth 8 June 1976 Place of Birth Tripoli – Libya

#### **Education**

1999 - 2002Queen's University Belfast, UK PhD in Mechanical Engineering Thesis title: "Investigation and Modeling of Diesel Particulate Filters" • Funded by Ford European Research Center in Aachen, Germany 1994 - 1999University of Jordan BSc in Mechanical Engineering • GPA: 3.81/4.00

• 1st on 1999 Faculty of Engineering graduates

#### Academic Experience

Sept. 2017 – Present	Professor School of Applied Technical Sciences, German Jordanian University
Jan. 2011 – Sept. 2017	Associate Professor School of Applied Technical Sciences, German Jordanian University
Oct. 2011 – Oct. 2014	Department Head Mechanical & Maintenance Engineering Department, German Jordanian University
Oct. 2008 – Sept. 2010	Associate Professor Mechanical Engineering Department, The Hashemite University
Sept. 2003 – Oct. 2008	Assistant Professor Mechanical Engineering Department, The Hashemite University
Dec. 2007 – Aug. 2009	Director Center for Academic Quality Assurance, The Hashemite University
Sept. 2006 – Feb. 2008	Department Head  Mechanical Engineering Department, The Hashemite University
Sept. 2002 – Sept. 2003	Post-Doctoral Research Fellow Internal Combustion Engines Research Group, Queen's University Belfast
Sept. 1999 – Sept. 2002	Teaching and Research Assistant School of Mechanical & Manufacturing Eng., Queen's University Belfast

#### **Teaching Highlights**

Designed and taught the following courses:

- Thermodynamics
- **Internal Combustion Engines**
- Heat Transfer
- Design of Hydraulic & Pneumatic Systems
- Fluid Mechanics
- Power & Refrigeration Cycles
- Advanced Heat Transfer
- **Energy Efficiency and Management**

• Technical Writing

#### Research Highlights

- 32 papers published in International Journals & 13 conference papers (list provided at the end)
- 821 Citations
- h-index = 18
- i-10 index = 22
- Institution rank (Google scholar) =  $6^{th}$
- Research interests:
  - o National energy analysis and policy.
  - o Utilization of solar and geothermal energy.
  - o Energy conservation & energy efficiency.
  - o Modeling of internal combustion engines and power cycles.

#### **Professional Certificates**

- Certified Expert Engineer in Renewable Energy & Energy Efficiency, Jordan Engineers Association.
- Certified Energy Manager (CEM), Association of Energy Engineers (AEE), US.
- Certified Measurement and Verification Professional (CMVP), Association of Energy Engineers (AEE), US.
- Certified Business Energy Professional (BEP), Association of Energy Engineers (AEE), US.
- Authorized trainer for CEM, CMVP, BEP courses and exams by the Association of Energy Engineers (AEE), US.

#### Awards and Honors

2016	Legend in Energy, Association of Energy Engineers, USA.
2012	Honor for "Distinguished Contribution in Teaching Methods", German Jordanian University.
2009	International Visitor Leadership Program – Renewable Energy Sources, US Department of State – Bureau of Educational and Cultural Affairs.
2006	TEMPUS Individual Mobility Grant, European Commission – Directorate General for Education and Culture.
2002	Science Communicators Award, UK Engineering and Physical Sciences Research Council.
2000	2 <sup>nd</sup> place, Sir Bernard Crossland Oral Presentation Award, Dublin.
1999-2002	Research Studentship, Queen's University Belfast.
1999	Ja'far Al-Shami Award for Excellence in Mechanical Engineering.
1998	IAESTE internship, Queen's University Belfast.
1994 –1999	Dean's list - Faculty of Engineering, University of Jordan.
1994-1999	Undergraduate Studentship, University of Jordan.
1994	National Top Ten Students List in the General Secondary Scientific Education Certificate Examination, with percentage average of 97.2%.

#### **Professional Experience**

#### April 2011 – Present

#### ETA-max Energy & Environmental Solutions, Jordan

- Renewable energy & energy management expert.
- Supervised the design and installation of solar photovoltaic projects in Jordan with a total capacity exceeding 7400 kW<sub>p</sub>.
- Supervised over 35 energy and water audits for industrial facilities and office buildings in Jordan.

#### Dec 2013 – Present

#### Jordan Green Building Council, Jordan

Conducted multiple sessions of two-level training program in energy efficient building envelope for engineers and architects from public and private sector entities.

#### June 2011 – Present

#### Jordan Energy Chapter/EDAMA, Jordan

Conducted multiple sessions of the AEE courses and exams of Certified Energy Manager (CEM) and Certified Measurement and Verification Professional (CMVP) for hundreds of engineers.

#### Sept 2016 – Present

#### GIZ GmbH, Germany

Short-term Expert developing M&V and carbon emissions reference documents for various municipality in Jordan, Palestine, Lebanon, Morocco, and Tunisia, in addition to developing and conducting tailored M&V training sessions through the EU-funded project "Sustainable Urban Demonstration Projects – SUDEP South Support Mechanism".

#### June 2011 – Nov 2016

#### Saudi Energy Efficiency Center (SEEC), KSA

- Designed and conducted a comprehensive capacity building program in energy auditing and management for the engineering staff of the center.
- Designed and conducted a series of energy auditing and management 5-day training programs in Riyadh, Taif, Dammam, Jeddah, Abha, Jubail, and Yanbu for hundreds of Saudi engineers.
- Supervised several energy audits for public and commercial buildings, including: Saudi Ministry of Finance, Saudi Ministry of Commerce and Industry, and the KACST Administration Building.

#### Dec 2015 – March 2016

#### Università di Bologna, Italy

Short-term Expert participating in the development of energy efficiency building codes for the local government of Kurdistan, Northern Iraq through the UN-Habitat project (RFP - 002-BCR-15).

### $Dec\ 2015-Feb\ 2016$

#### GFA Consulting Group GmbH, Germany

Short-term Expert. Developed and conducted two training courses in the implementation and monitoring of energy saving measures and design of grid-connected PV systems through the EU funded program "Energy Efficiency in

Public Buildings in Jordan".

#### Jan 2015 – April 2015 Integration Environment & Energy GmbH, Germany

Short-term key expert conducting a techno-economic feasibility study on renewable energy options for Azraq Refugee Camp in collaboration with UNHCR.

#### MED-ENEC "EU Program for Energy Efficiency in the Construction Sector in the Mediterranean"

Short-term expert for the development of a two-level training program in energy efficient building envelope (technologies & codes).

July 2012 - Oct. 2012

June 2013 – Dec 2013

#### American University of Ras Al-Khaimah (AURAK), UAE

- Short-term key expert in Academic Quality Assurance.
- Supervised and managed the Institutional Accreditation and Re-licensure in accordance to the UAE Commission for Academic Accreditation.
- Developed Institutional Quality Assurance/Institutional Effectiveness Manual

June 2010 - Jan 2011

#### Ministry of Electricity and Water, Kuwait

- Short-term key energy expert.
- Designed and conducted a comprehensive capacity building program in energy auditing and management for 120 Kuwaiti engineers.
- Supervised several energy audits for public and commercial buildings, including: Central Electricity Control Center, PAAET Al-Ardiyya Campus.
- Energy consultant for the purposes of LEED certification for PAAET Learning Resource Center.
- Conducted technical feasibility analysis for solar energy projects.

#### <u> Academic Service</u>

2016-Present	Coordinator, Erasmus + Project: "Towards a National Qualifications Framework for
	Jordan", GJU.
2015-Present	Member of the Central Tenders Committee, GJU.
2011-2014	Member of the University Scientific Research Council, GJU.
2011-2014	Member of School Council of the Applied Technical Sciences Council, GJU
2008-2009	Member of the Advisory Board of the International Relations Office, HU.
2008-2009	Member of the E-Learning Center Council, HU.
2008-2009	Member of the Mechanical Engineering Department Scientific Research Committee, HU.
2007-2009	Member of the University Strategic Planning Committee, HU.
2007/2008	Member of the University Council, HU.
2007/2008	Head of the Faculty of Engineering Academic Programs Committee, HU.
2006-2008	Member of the Faculty of Engineering Graduate Studies Committee, HU.
2006-2008	Member of the Faculty of Engineering Development Committee, HU.
2006-2008	Head of the Mechanical Engineering Department Academic Program Committee, HU.
2006-2008	Head of the Mechanical Engineering Department Graduate Studies Committee, HU.
2006/2007	Head of the Mechanical Engineering Department ABET Committee, HU.
2006/2007	Member of the Faculty of Engineering ABET Committee, HU.
2004-2006	Member of the Faculty of Engineering Student Affairs Committee, HU.

#### **Professional Service**

- Chairman of the organizing committee of the 9<sup>th</sup> Jordanian International Mechanical Engineering Conference, 2017.
- Judge, MENA Green Building Awards, Emirates Green Building Council, 2017.
- Vice Chairman and elected board member, Jordan Green Building Council, 2016/2017.
- Member of the national committee for the review of the Solar Energy Building Code, 2016/2017.
- Member of the national committee for the review of the Energy Efficient Building Code 2016/2017.
- Founding member of Jordan Energy Engineers Chapter.
- Authorized trainer by the Engineers Training Center, Jordan Engineers Association.
- Member of several committees at the Jordan Engineers Association.
- Invited Speaker on energy efficiency, renewable energy, energy policy at numerous forums, workshops and seminars.
- Member of several accreditation committees for engineering programs, Jordan Higher Education Accreditation Commission.
- Conducted numerous local and regional seminars and training courses and workshops on energy efficiency technologies, energy management, and renewable energy applications.
- Regular reviewer for the following Journals:
  - o Energy Policy
  - o International Journal of Energy Research
  - o Energy Conversion & Management
  - o Jordan Journal for Mechanical and Industrial Engineering
- Member of several examining committees for Master theses at the University of Jordan, the Hashemite University, and the German Jordanian University.
- PV Track chair, IEEE Amman Metro Area Workshop, Amman, 2016.
- Member of the organizing committee for the International Conference of Young Scientists on Innovative Renewable Energy Research, Amman, 2015.
- Member of the organizing committee for the 8<sup>th</sup> Jordanian International Mechanical Engineering Conference, Amman, 2014.
- Member of the organizing committee for the 4<sup>th</sup> Global Conference on Renewable Energy Approaches for Desert Regions, Amman, 2013.
- Member of the organizing committee and session chair for the 3<sup>rd</sup> Global Conference on Renewable Energy Approaches for Desert Regions, Amman, 2011.
- Member of the scientific committee and session chair for the International Conference on Green Energy and Sustainability for Arid Regions, Amman, 2009.
- Member of the organizing committee and session chair for the 2<sup>nd</sup> Global Conference on Renewable Energy Approaches for Desert Regions, Amman, 2009.
- Member of the organizing committee for the Jordanian-German Workshop on Energy and Oil Shale, Amman, 2008.
- Moderator and member of the organizing committee for the Third International Conference on Thermal Engineering: Theory and Applications, Amman, 2007.
- Member of the International scientific committee for the 3<sup>rd</sup> IASME/WSEAS International Conference

## **Specialized Workshops & Short Courses**

2012	Integration of Renewable Energy into the Electricity Grids, German Renewables Academy (RENAC).
2009	Energy Regulations and Policies, College of Europe & University of Jordan.
2009	Concentrating Solar Power – Principles & Applications, German Renewables Academy (RENAC).
2008	Internal and External Evaluation Methodologies, Association of Arab Universities.
2008	Leadership Course on Management and Quality Assurance of Scientific Research in Universities, International Leadership Institute-United Nations University.
2008	Building Envelop Energy Efficiency Technology, US Department of Energy – Higher Council for Science and Technology, Jordan.
2008	Foresight Techniques for the Development of Future Energy Policies, Higher Council for Science and Technology, Jordan.
2008	Quality Assurance and Accreditation in Higher Education Institutions, Higher Education Accreditation Commission, Jordan.
2007	Leadership Course on Developing Quality Assurance Systems for Jordanian Universities, International Leadership Institute-United Nations University.
2007	Strategic Planning for Higher Education Institutions, Ministry of Higher Education and Scientific Research, Jordan.
2004	Creative Management in Higher Education, British Council, Jordan.
2003	Teaching and Assessment in Higher Education, The Hashemite University.
2003	Project Management and Personal Effectiveness, Queen's University Belfast.
2002	Lobbying and Negotiation Skills, Queen's University Belfast.
2001	Design of Multifactor Experiments, Good Decision Ltd., UK.
2001	Safety in Workplace, Queen's University Belfast.
2000	Laboratory Demonstration and Small Group Teaching, Queen's University Belfast.

# **Conferences & Professional Meetings**

2016	39th World Energy Engineers Congress, Washington DC.
2016	World Future Energy Summit, Abu Dhabi.
2016	IEEE Amman Metro Area Workshop, Amman.
2015	International Conference of Young Scientists on Innovative Renewable Energy Research, Amman, 2015.
2015	World Future Energy Summit, Abu Dhabi.
2014	8th Jordanian International Mechanical Engineering Conference, Amman.
2014	World Future Energy Summit, Abu Dhabi.
2013	4th Global Conference on Renewable Energy Approaches for Desert Regions, Amman.

2013	World Future Energy Summit, Abu Dhabi.
2012	World Future Energy Summit, Abu Dhabi.
2011	Jordan International Energy Conference, Amman.
2011	3 <sup>rd</sup> Global Conference on Renewable Energy Approaches for Desert Regions, Amman.
2010	Jordan Sustainability Forum, Amman.
2009	German Jordanian Workshop on Energy and Alternative Fuels, Amman.
2009	2 <sup>nd</sup> Global Conference on Power Control and Optimization, Bali.
2009	International Conference on Green Energy and Sustainability for Arid Regions, Amman.
2009	2 <sup>nd</sup> Global Conference on Renewable Energy Approaches for Desert Regions, Amman.
2009	14 <sup>th</sup> Jordanian Scientific Week: Science, Technology, and Sustainable Development, Amman.
2008	3 <sup>rd</sup> IASME/WSEAS International Conference on Energy and Environment, Cambridge.
2008	60 <sup>th</sup> Annual IAESTE International Conference, Dead Sea.
2007	3 <sup>rd</sup> International Conference on Thermal Engineering: Theory and Applications, Amman.
2007	24 <sup>th</sup> Arab Engineering Conference, Amman.
2007	13 <sup>th</sup> Jordanian Scientific Week: Science and Technology Parks – Building Knowledge-Based Economies, Amman.
2007	6 <sup>th</sup> Jordanian International Mechanical Engineering Conference, Amman.
2006	8 <sup>th</sup> Arab Energy Conference: Energy and Arab Cooperation, Amman.
2006	12th Jordanian Scientific Week: Energy, Water, and Environment, Amman.
2006	2 <sup>nd</sup> IASME/WSEAS International Conference on Energy, Environment, Ecosystems and Sustainable Development, Athens.

#### List of Publications

#### Journal Papers:

- 1- I. Al-Hinti, A. Al-Muhtady, W. Al-Kouz, "Measurement and modelling of the ground temperature profile in Zarqa, Jordan for geothermal heat pump applications" *Applied Thermal Engineering*, **123**, 131-137, 2017.
- 2- I. Al-Hinti, H. Al-Sallami "Potentials and Barriers of Energy Saving in Jordan's Residential Sector through Thermal Insulation" *Jordan Journal of Mechanical and Industrial Engineering*, accepted, 2017.
- 3- I. Al-Hinti, A. Al-Ghandoor, A. Sakhrieh, B. Akash, E. Abu-Nada "A comparative analysis of energy indicators and CO<sub>2</sub> emissions in 15 Arab countries" *International Journal of Environment and Waste Management*, **11** (2), 2013.
- 4- A. Al-Ghandoor, J. Jaber, I. Al-Hinti, Y. Abdallat "Statistical assessment and analyses of the determinants of transportation sector gasoline demand in Jordan" *Transportation Research Part A*, **50**, 129-138, 2013.
- 5- J. Jaber, A. Al-Ghandoor, I. Al-Hinti, S. Sawalha "Prediction of energy consumption of passenger transportation and GHG emissions in Jordan" *International Journal of Global Warming*, **4** (2), 2012.
- 6- A. Al-Ghandoor, M. Samhouri, I. Al-Hinti, J. Jaber, M. Al-Rawashdeh "Projection of future transport energy demand of Jordan using adaptive neuro-fuzzy technique" *Energy*, **38** (1), 128-135, 2012.

- 7- Y. Abdallat, A. Al-Ghandoor, I. Al-Hinti "Potential CO<sub>2</sub> reduction through restructuring the Jordanian Utility Sector" *International Journal of Environment and Waste Management*, **10** (1), 2012.
- 8- A. Al-Ghandoor, J.O. Jaber, I. Al-Hinti "Energy and exergy use in the utility sector of Jordan during 2007-2010" *Jordan Journal of Mechanical and Industrial Engineering* **5** (3), 281-284, 2011.
- 9- Y. Abdallat, A. Al-Ghandoor, I. Al-Hinti "Reasons behind energy changes of the Jordanian industrial sector" *Jordan Journal of Mechanical and Industrial Engineering*, **5** (3), 241-245, 2011.
- 10- A. Al-Ghandoor, I. Al-Hinti "Declination of the aggregate energy intensity of the Jordanian Industrial Sector between years 1998 and 2005" *Jordan Journal of Mechanical and Industrial Engineering*, **5** (2), 113-118, 2011.
- 11- A. Sakhrieh, E. Abu-Nada, B. Akash, I. Al-Hinti, A. Al-Ghandoor "Performance of diesel engine using gas mixture with variable specific heats model" *Journal of the Energy Institute*, **83** (4), 217-224, 2010.
- 12- A. Al-Ghandoor, I. Al-Hinti, A. Mukattash, Y. Abdallat "Decomposition analysis of electricity use in the Jordanian Industrial Sector" *International Journal of Sustainable Energy*, **29** (4), 233-244, 2010.
- 13- I. Al-Hinti, M. Maaly, I. Abu-Naqeera, Z. Al-Khatib, O. Al-Sheikh "Experimental investigation of water-phase change material storage in conventional solar water heating systems" *Energy Conversion & Management*, **51** (8), 1735-1740, 2010.
- 14- A. Sakhrieh, E. Abu-Nada, I. Al-Hinti, B. Akash, A. Al-Ghandoor "Computational thermodynamic analysis of compression ignition engines" *International Communications of Heat and Mass Transfer*, **37** (3), 299-303, 2010.
- 15- M. Mohsen, A. Al-Ghandoor, I. Al-Hinti "Thermal analysis of compact solar water heater under local climatic conditions" *International Communications of Heat and Mass Transfer*, **36** (9), 962-968, 2009.
- 16- E. Abu-Nada, B. Akash, I. Al-Hinti, A. Al-Sarkhi "Performance of spark ignition engine under the effect of friction using gas mixture model" *Journal of Energy Institute*, **82** (3), 198-206, 2009.
- 17- A. Al-Ghandoor, J.O. Jaber, I. Al-Hinti, I.M. Mansour "Residential past and future energy consumption: potential savings and environmental impact" *Renewable and Sustainable Energy Reviews*, **13** (6-7), 1262-1274, 2009.
- 18- A. Al-Ghandoor, J.O. Jaber, M. Samhouri, I. Al-Hinti "Analysis of aggregate electricity intensity change of the Jordanian industrial sector" *International Journal of Energy Research*, **33** (3), 255-266, 2009
- 19- I. Al-Hinti, M. Samhouri, A. Al-Ghandoor, A. Sakhrieh "The effect of boost pressure on the performance characteristics of a diesel engine: a neuro-fuzzy approach" *Applied Energy*, **86** (1), 113-121, 2009.
- 20- I. Al-Hinti, B. Akash, E. Abu-Nada, A. Al-Sarkhi "Performance analysis of air standard diesel cycle using an alternative heat transfer approach" *Energy Conversion and Management*, **49** (11), 3301-3304, 2008.
- 21- A. Al-Ghandoor, I. Al-Hinti, B. Akash, E. Abu-Nada "Analysis of energy and exergy use in the Jordanian urban residential sector" *International Journal of Exergy*, **5**, 413-428, 2008.
- 22- A. Al-Sarkhi, B. Akash, E. Abu Nada, S. Nijmeh, I. Al-Hinti "Prospects of geothermal energy utilization in Jordan" *Energy Sources, Part A*, **30**, 1619-1627, 2008.
- 23- E. Abu-Nada, B. Akash, I. Al-Hinti, A. Al-Sarkhi, S. Nijmeh, A. Ibrahim, A. Shishan "Modelling of a geothermal standing column well" *International Journal of Energy Research*, **32**, 306-317, 2008.
- 24- A. Al-Ghandoor, I. Al-Hinti, J. O. Jaber, S. A. Sawalha "Electricity consumption and associated GHG emissions of the Jordanian industrial sector: empirical analysis and future projection" *Energy Policy*, **36**, 258-267, 2008.
- 25- E. Abu-Nada, I. Al-Hinti, A. Al-Sarkhi, B. Akash "Effect of piston friction on the performance of SI engine: a new thermodynamic approach" *ASME Journal of Engineering for Gas Turbines and Power*, **130**, March 2008.

- 26- I. Al-Hinti, A. Al-Ghandoor, B. Akash, E. Abu-Nada "Energy saving and CO<sub>2</sub> mitigation through restructuring Jordan's transportation sector: the diesel passenger cars scenario" *Energy Policy*, **35**, 5003-5011, 2007.
- 27- A. Al-Ghandoor, I. Al-Hinti "Prospects of energy savings in the Jordanian plastic industry" *Jordan Journal of Mechanical and Industrial Engineering*, **1** (2), 93-98, 2007.
- 28- Al-Sarkhi, I. Al-Hinti, E. Abu-Nada, B. Akash "Performance evaluation of irreversible Miller engine under various specific heat models" *International Communications of Heat and Mass Transfer*, **34**, 897-906, 2007.
- 29- E. Abu-Nada, A. Al-Sarkhi, B. Akash, I. Al-Hinti "Investigation of heat transfer and fluid flow characteristics of separated flows under the effect of suction and blowing" *ASME Journal of Heat Transfer*, **129**, 1517-1528, 2007.
- 30- E. Abu-Nada, I. Al-Hinti, B. Akash, A. Al-Sarkhi "Thermodynamic Analysis of spark-ignition engine using a gas mixture model for the working fluid" *International Journal of Energy Research*, **31**, 1031-1046, 2007.
- 31- E. Abu-Nada, I. Al-Hinti, A. Al-Sarkhi, B. Akash "Thermodynamic modeling of spark-ignition engine: Effect of temperature dependant specific heats" *International Communications of Heat and Mass Transfer*, **33**, 1264-1272, 2006.
- 32- M.A. Hamdan, I. Al-Hinti "Analysis of heat transfer during the melting of a phase change material" *Applied Thermal Engineering*, **24**, 1935-1944, 2004.

#### **Conference Papers:**

- 1- I. Al-Hinti "Fast track capacity building for sustainability, Jordan as a role model for the MENA region" *Proceedings of Road Map to Sustainability Conference*, Tripoli, Lebanon, 2017.
- 2- I. Al-Hinti "Energy Auditing of a Large Shopping Mall: A Case Study from Saudi Arabia" *Proceedings* of the 39<sup>th</sup> World Energy Engineers Congress, Washington D.C., 2016.
- 3- I. Al-Hinti, A. Al-Khalidi, H. Al-Kilani "Analysis of building envelope parameters on the heating and cooling energy demand in Amman" *Proceedings of the International Conference of Young Scientists on Renewable Energy Research*, Amman, 2015.
- 4- I. Al-Hinti, A. Al-Muhtady, W. Al-Kouz "Experimental evaluation of the ground thermal potential for heating and cooling in Jordan" *Proceedings of the International Conference of Young Scientists on Renewable Energy Research*, Amman, 2015.
- 5- H. Al-Sallami, I. Al-Hinti "Current status on thermal insulation in residential buildings in Amman, Jordan" *Proceedings of the International Conference of Young Scientists on Renewable Energy Research*, Amman, 2015.
- 6- I. Al-Hinti, A. Al-Ghandoor "Analysis of final energy consumption patterns in 10 Arab countries" *Proceedings of the 2<sup>nd</sup> Global Conference on Power Control and Optimization*, Bali, 2009.
- 7- A. Al-Ghandoor, I. Al-Hinti "Analysis of changes in electricity demand in Jordanian Industrial sector" *Proceedings of the 2<sup>nd</sup> Global Conference on Power Control and Optimization*, Bali, 2009.
- 8- I. Al-Hinti, A. Al-Ghandoor "Analysis of policies affecting the energy performance of the Jordanian transport sector" *Proceedings of the 14<sup>th</sup> Jordanian Scientific Week: Science, Technology, and Sustainable Development*, Amman, 2009.
- 9- A. Al-Ghandoor, I. Al-Hinti, M. Mohsen "Energy consumption potential savings and GHG emissions reduction of Jordan's household sector" *Proceedings of the International Conference on Green Energy and Sustainability for Arid Regions*, Amman, 2009.
- 10- I. Al-Hinti, A. Al-Ghandoor, M. Maaly, I. Abu-Naqeera, Z. Al-Khatib, O. Al-Sheikh "Experiments on the use of phase change material for storage of solar thermal energy" *Proceedings of the 2nd Global Conference on Renewable Energy Approaches for Desert Regions*, Amman, 2009.

- 11- A. Al-Ghandoor, P. Phelan, R. Villabosd, I. Al-Hinti "Energy and exergy Analysis of competing Aluminum reduction technologies" *Proceedings of the 2nd Global Conference on Renewable Energy Approaches for Desert Regions*, Amman, 2009.
- 12- I. Al-Hinti, A. Al-Ghandoor, A. Al-Naji, M. Abu-Khashabeh, M. Joudeh, M. Al-Hattab "Energy saving opportunities through heat recovery from cement processing kilns: a case study" *Proceedings of the 3<sup>rd</sup> IASME/WSEAS International Conference on Energy & Environment*, Cambridge, UK, 2008.
- 13- A. Al-Ghandoor, I. Al-Hinti, B. Akash "Potential electrical energy saving opportunities in the Jordanian plastics industry" *Proceedings of the 3<sup>rd</sup> International Conference on Thermal Engineering: Theory and Applications*, Amman, 2007.
- 14- I. Al-Hinti "Energy saving potentials in Jordan through the introduction of diesel passenger cars" *Proceedings of the 2<sup>nd</sup> IASME/WSEAS International Conference on Energy, Environment, Ecosystems and Sustainable Development*, Athens, 2006. Selected for publication in *WSEAS Transactions on Environment and Development*, 2 (5), 479-501, 2006.