

WALEED M. HAMMAD



**RENEWABLE ENERGY CENTER
THE HASHEMITE UNIVERSITY
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Waleed Hammad is energy engineer & design /lecturer in Mechanical Engineering, the founder of the Department of Renewable Energy Center (2013), the founder and the supervisor of the Renewable Energy Laboratory of Engineering Projects (2007-2013), operation & maintenance engineer (O&M) for 10 MW Solar plant (solar farm, students canopies, car parks, and others) (2016-2020).The member and team builder of Renewable Energy Projects. He received his BSc in Mechanical Engineering from Al-Balqa Applied University, Jordan, 2007. From the Hashemite University he was awarded his MSc in Mechanical Engineering and Energy Systems, in 2017. Thereafter, he has been associated with the Faculty of Engineering and Energy Projects at the Hashemite University for 5 years. His enthusiastic and Professionalism to research and management of working as a professional energy engineer and consultant in university for 5 years led to choose him to development the campus to smart university.

Energetic lecturer utilizes a very interactive approach to teach renewable energy systems and thermal engineering. Over 5 years Professional Practice: project management, design, construction, teaching, and green building conservation experience dealing with solving problems and optimizing team potentials. Proven track record is in testing to successful implementation within budget, scope, timescales and process limitations. Additional significant expertise has also been gained working within the sustainable design of energy strategy for a very wide range of projects in Jordan. Recently has been involved in the field of photovoltaic farm project at the Hashemite University in Jordan. Always use the analytical and people management skills and deliver efficient and reliable solutions to critical and complex problems

Curriculum Vitae

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An enthusiastic Professional with over +10 years of experience. To secure a technical position as an Energy Engineer in a fast growing and challenging energy that provides new innovations in the development of the energy technology, highly motivated and effective to support the technical aspects

AREAS OF EXPERTISE

- Team Leadership
- General Management
- Tender preparation for multi projects
- Professional Practice in green energy
- Sustainable Design
- Environmental Protection
- Research and Development
- Performing preliminary data analysis and developing technical recommendations
- Quality Assurance
- Tender preparing
- developing and maintaining relationships with subcontractors, suppliers and partners
- Maintaining and monitoring time management

CORE QUALIFICATIONS

- Has worked on several public and private working projects.
- Known for getting students excited about renewable energy systems.
- Has helped design several buildings in which Sustainability was taught.
- Member of the Solar Energy Project at the Hashemite University (50 MW).
- Exceptionally strong communication, demonstration, and management skills.
- High technical skills (solar PV), purchasing and negotiation recognized.
- Operation & maintenance engineer (team leader& coordinator),all job takes related for O&M (10 MW Solar plant)

Education:

- **Bachelor's degree** in Mechanical Engineering (Thermal and Hydraulic Machines), GPA 3.21, rating: Very Good, **Al-Balqa Applied University**, Jordan, 2007.
- **Master's degree** in Mechanical Engineering and Energy Systems, GPA 3.65, rating Excellent, **Hashemite University**, Jordan, 2017.

Achievements:

- 1) Smart university Project.
- 2) Green & Smart Campus.
- 3) Committee member of (UI) green metric and smart university
- 4) Development energy recourses and projects
- 5) energy audit facilities
- 6) buildup the O&M team for many projects

About CURRENT JOB, Professional Experience

Energy Manager and O&M Engineer, Hashemite university, July 2017- 2023

Responsibilities

- Formulated and enforced the aims and purposes of strategies and policies in diluting energy consumptions.
- Supervised and reexamined the effectiveness of these policies and strategies by coordinating annual progress reports.
- Formulated policies and systems for buying energy and aided with contract negotiations.
- Conducted training on energy efficiency and rendered technical and practical advice.
- Publicized particular schemes by formulating promotional activities and materials.
- Planning and undertaking scheduled maintenance
- Responding to breakdowns
- Diagnosing faults
- Supervising engineering and technical staff
- Obtaining specialist components, fixtures or fittings
- Managing budgets
- Maintaining statistical and financial records
- Ensuring compliance with health and safety legislation
- Creating maintenance procedures
- Managing stocks of supplies and equipment

Senior Energy Engineer, Hashemite University, April 2013-2017

Responsibilities

- Participated in producing energy by the use of natural resources.
- Formulated innovative ways to provide clean and efficient energy.
- Participated in the design, development and building of renewable energy technologies.
- Supervised the consolidation of renewable energy propagation.
- Formulated and enforced strategies relating to renewable energy and corporate sustainable development.
- Performed analysis and designing of energy solutions in full range. Performed technical and financial evaluations of energy efficiency and management solutions.
- Performed comprehensive energy audits of commercial, institutional, and industrial clients.
- Identified and developed energy reduction opportunities.
- Identified and developed associated estimates of cost and energy savings.

Supervisor of the Renewable Energy Laboratory, Hashemite University June 2007-2013

Responsibilities

- Teaching Biomechanics
- Teaching energy management for undergraduate student
- Training student in photovoltaic using programs for solar calculations.
- Manages day-to-day operations of all teaching laboratories, including equipment preparation and maintenance, safety standards/training compliance.
- Prepares and oversees equipment scheduled for use during laboratory teaching sessions.
- Demonstrates care and use of equipment, according to health and safety standards and practices, to teaching staff and students.
- Ensure that all equipment's and operations are audited to ensure highest levels of adherence to health and safety protocols.
- Supports teaching staff in the development and implementation of teaching modules and projects.
- Trains teaching staff and students in application and use of new equipment.
- Coordinates with school administration to determine equipment/consumables purchase priorities based on budget allowances, condition of existing equipment, and scheduled laboratory activities.
- Participate in a college scientific days, development activities for students and committees
- Implement any changes to the lab facilities necessary to improve science lab experiment.
- Reasonably related duties as assigned.
- Implement any orders of procurement and tenders of scientific and engineering equipment's.
- implement multi courses at a variety of times and locations in response to university and community needs
- Preparing Tenders and Procurement Invoices and Contract Documentation for Faculty of science.

Research & Development, Household refrigerators (MISTRAL) Sep 2000-2007

Responsibilities

- Refrigerators inspections by heat97 program.
- Enhancing the performance of refrigerators.
- Optimizing new product with low cost and low power consumptions of electricity

Skills

- Ability to exercise good judgment of visual communication
- Ability to handle pressure
- Ability to provide training in Renewable Energy Technologies.
- Ability to understand job details
- Ability to Use Technology to Conduct Tasks
- Energy Audits / Energy Management Report
- Energy Efficiency / Renewable Energy Studies
- Accounting Principles
- Awareness in office software programs
- Technical related subjects (marketing RFPs, technical meetings, SPECS, BOQ, delivery meetings, time scheduling, budget/utilization monitory, deputizing Head
- Testing installations and systems, and analyzing data
- Contracts Administration
- Excellent Computer Skills
- Commitment Ethics
- PV system preliminary design
- Very Good Imagination Skills

- Events Management
- Training Evaluation
- Cost Control
- Business Correspondence
- Strong organization and detail oriented skills
- Ability to procure/ analyze offers from different sub consultants/ specialists
- Developments.
- Very good experimental skills and good command of English both in writing and speaking.
- A Positive Attitude to Dealing with People
- Have good experience with operation and maintenance of instrumentation and good experience with general laboratory operations and safety standard and laboratory management
- Ability to follow up logistics
- Ability to develop others
- Self-motivated and fast learner
- Implement any orders of procurement and tenders of scientific and engineering equipment's
- Preparing Tenders and Procurement Invoices and Contract Documentation for Faculty of science.
- Proficient at using Microsoft office suite.

Trainings & courses

- University education course
- Project Management Training (PMP), (40hr), by Engineers Training Center.
- NDT Level II, Eddy Current (40hr)
- English language conversation (60hr).
- Technical writing (12hr) by jeer
- International computer driving license (ICDL).
- A-CAD -2D, (30hr), by Jeer.
- Total quality management application (20hr).
- Managerial supervision (20hr).
- HVAC –course, (15hr), by Jeer.
- Firefighting system course, (12hr),by Jeer
- Preparation course for the toil test.
- VRV-variable refrigerant volume ,by Jea &Daikin
- XRF Testing course by Jordan Atomic Energy Commission (JAEC).
- Mat-lab course (18by hr), by Jea
- Certified in general exam in construction capability by (GECC)
- PV Installer Training organized by Canadian Solar Middle East (16 hr.).
- Certified Energy Management Professional (CEMP) by (JEA).

Conferences Attended

5th Global Conference on Renewable and Energy Efficiency for Desert Regions (GCREEDER) from 3rd April -5th -2016 (Amman).

6th Global Conference on Renewable and Energy Efficiency for Desert Regions (GCREEDER) From 3rd April -5th -2018 (Amman).

Languages

- Arabic: Native language.
- English: Very good in listening, conversation, and reading & writing.

Teaching

- Renewable Energy & Energy Efficiency concepts
- Energy conservation.
- Energy conversion and management.
- Heat Transfer.
- Thermodynamics.
- Design of Thermal System.
- Internal Combustion Engine

ORGANIZATIONS & MEMBERSHIPS

- Jordanian Engineering Association (JEA) Aug 2007 -Current

Research

- Energy modeling, Forecasting and Optimization
- Energy Auditing
- Photovoltaic Applications.
- Renewable Energy.

PUBLICATIONS:

(2020) Mohammed I. Abuashour^{1a}, Tha'er O. Sweidan^{2b}, Audai Al-Kurdi^{1c}, Mohammed Al-maitah^{1d}, **Waleed Hammad^{3e}**, Mohammed alhattab^{1f}, Omar Abdallah^{3g} "**utilizing Variable Excitation Capacitance for Wind Turbine Employing SEIG for Feeding IM Driving Centrifugal Pump**" in International Journal of Latest Engineering Science (IJLES), Vol. 03, Issue. 03,Pp: 19-28.

(2020) Mohamed R. Goma^{a,b}, **Waleed Hammad^c**, Mujahed Al-Dhaifallah^d, Hegazy Rezk^{e,f,*} "**Performance enhancement of grid-tied PV system through proposed design cooling techniques: An experimental study and comparative analysis**" in Solar Energy, Vol. 211, DOI: 10.1016/j.solener.2020.10.062,Pp: 1110-1127.

(2021) **Waleed Hammad^a**, Thaer Sweidan^b, Mohammed I. Abuashour^c, Haris M. Khalida, SM Muyeenc,"**Thermal Management of Grid-Tied PV System: A Novel Active and Passive Cooling Design-Based Approach**"

References

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