



Mohammad Ibrahim Ahmad Abuashour

Personal Information

Date of birth: 15/07/1968

Marital status: Married

Native language: Arabic

Other languages: Fluency in writing, reading and speaking English

Personality: Hard worker who enjoys under-pressure jobs, self-motivated, creative, quick learner, resourceful, decision maker, able to manage a team of technicians on multiple projects, and an excellent executive site manager

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Research Gate address: https://www.researchgate.net/profile/Mohammad_Abuashour

Google Scholar address: <https://scholar.google.com/citations?user=jTPdZLsAAAAJ&hl=en>

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Overview

- Over than 25 years of diverse experience in many application areas like Electricity, Electronics, Telecommunications, Military related technology and Management
- My concerns are Implementing and enhancing what I have gained from my education, work experience, and skills in advancing my career and education in the fields of electronic, communication, electrical and electro-mechanical engineering
- My research interests are in Power system stability, Renewable energysystems and their Electrical integration, Smart Metering, Inter-area oscillation, Power Electronics, Electrical Machines dynamics and Electrical Drives
- Solar energy engineer accredited by JEA

Education

- Yarmouk University, Jordan
2013-2016
Master degree in Electrical Power Engineering
GPA: 86.9 %, Rating: Very Good
Thesis title: Dynamical and Steady State Analysis of a Standalone Hybrid PV/Wind Power System Feeding an Induction Motor for Pumping Applications
- Jordan University of Science & Technology, Jordan
2005-2009
Bachelor degree in Electrical Engineering
GPA: 76.5%, Rating: Very Good
- Jami'at Al-Balqa Al-Tatbiqiyya, Jordan
1986-1988
Intermediate Diploma degree in Aeronautical Electronics Engineering
GPA: 86.8%
- High school scientific branch (1986) with an average of 85.9%

Training Courses

- Solar Energy training on acquisition of knowledge and skills about the 5MWp photovoltaic plants at Hashemite University in Zarqa, Jordan
- Operation and Maintenance for the Photovoltaic Solar Plants Training Course
- Smart Meters and Meters Data Management System
- Maintenance training course (UP to board replacement) for the ABB inverters in the Hashemite University
- Solar PV Career Advancement Course
- ETAP Introduction and Power System Analysis training
- Digital Fabrication Training (PCB, CNC machine, Laser cutter and 3D printing)
- Instructional design and storyboarding techniques
- A certified course of Protection of the Power System
- A certified course of maintenance and repair of the Electronic surveillance (Radar) and Support Measure s equipment from Racal College (England)

- A certified course of maintenance and repair of Radar Environmental Simulator for Electronic surveillance and Support Measures equipment from Racal College (England)
- A certified course of maintenance and repair for Electronic surveillance (Radar) and Support Measures equipment from the first Up to the third line of Maintenance from Racal College
- English language course (05/10/1991 - 05/02/1992)
- A certified course for using testing and measuring instruments (06/01/1994 - 26/01/1994).
- A certified course of Management and Administration from Prince FAISEL Technical College (29/04/1995-07/06/1995)
- A certified course of maintenance and repair of Communication systems of the Electronic surveillance (Radar) and Support Measures equipment (16/10/1996 – 04/12/1996)
- International Computer Driving License (ICDL) in English
- Successfully completed a 280-hours training in the Microsoft approved course Microsoft Certified System Engineer on Window Server 2003(MCSE 2003) which was held (01/10/2006 - 07/06/2007) at AL Yarmouk University
- Programming Using MATLAB course (03/2007-04/2007)

Work Experience

Hashemite University (HU):

- Lab instructor in the Electrical Engineering Department for many labs from 13/10/2009-till now:
 - Electrical Circuits Lab
 - Electronics Circuits Lab
 - Electrical Machines Lab
 - Engineering Drawing
 - Solar Energy Lab
 - Wind Turbine Lab
 - Power System Simulation Lab(PSAF)
 - Communications Lab
 - Microwave Lab
- Part time lecturer for different courses in the electrical engineering department
- Trainer for PV systems
- Manager and O&M technical supervisor for HU PV 5MWp Power Plant (Feb 2016- Till now) responsible for:
 - Planning, scheduling and ensuring execution of daily, weekly and monthly activities to ensure smooth and safe operation of solar power plants
 - Monitoring the performance of the solar power plant on a day-to-day basis
 - Identifying problems and developing corrective action plans scheduling and execution of preventive and corrective maintenance
 - Experienced in SCADA monitoring and control system by working as the operator of the PV plant
 - Preparing the system different reports regarding the production or the maintenance
 - Designing and constructing Solar Power systems
 - Preparing with regard PV systems tenders specifications, studying bids and supervising installation
 - Experienced in smart metering and monitoring systems for HU buildings
 - Participating in all energy policies in the university
 - Experienced in energy efficiency, security and transition
- Manager and supervisor for the Engineering College's theaters affairs of the Hashemite University

Royal Jordanian Air force:

Electronic technician (1/10/1988 – 1/3/2005)

I occupied several positions & different roles as follows:

- Acting as an **Electronic Technician** in the Directorate of Electronic Communication, carrying multiple tasks at different locations as follows:
 - Installation of different kinds of high power radar systems & mobile radar systems
 - System's wiring and cabling
 - Station's air conditioning system
 - Station's radar transmitter/receiver
 - Station's signal processing unit
 - Operation / control room
 - Air compressor system
 - Antenna and gearbox
 - Radar simulation equipment
 - Communication equipment
 - I.F.F. system
- Acting as a **Technical Manager** at the Radar systems workshop using all levels of maintenance from the first line up to fourth line, I used most of the testing and measuring equipment such as: oscilloscope, digital multi-meter, solder station, test bench, EPROM programming machine, logic analyzer ... etc.
- Acting as an **Electronic Technician** at Racal Company (England) during their work on deploying a large project "around 40 million JD worth". I was involved in:
 - Microwave antenna system

- Communication system
- Electronic surveillance (Radar) & support measure equipment
- HVAC systems
- Electric generator
- Acting as a **Lecturer** for several courses in Electrical, Telecommunications, RADAR, and Electronic circuits and systems in the Royal Jordanian Air Force in the EW Directorate

Participated committees in the Hashemite University

- ABET Accreditation
- Strategic Plan
- Tendering
- Equipment Maintenance
- Social
- Energy, Water and Environment

Honors & Awards

- Insignia of appreciation "The Sincere Long Service" issued by General Command of the Jordanian Armed Forces
- Insignia "The Technical, Managerial, and Training Competency" issued by General Command of the Jordanian Armed Forces
- A letter of thanks from the Director General of Civil Status and Passports for my constructive and distinguished efforts in providing support to the Civil Status and Passports Department for achieving of their solar energy project
- A letter of thanks from His Excellency the President of the Hashemite University for the subject of following up on the bid for the project to rehabilitate the buildings of the Hashemite University, funded by the UAE grant within the Universities Development Project, and those efforts that were based on several different administrative and technical stages of auditing and holding meetings with the Ministry of Planning

Publications

- [1] **Mohammed I. Abuashour**, Mohammad Widyan, Tha'er O. Sweidan, Mohammed Almomani, "Modeling, Simulations and Operational Performance of a Stand-Alone Hybrid Wind/PV Energy System Supplying Induction Motor for Pumping Applications", Int. J. Engineering Systems Modelling and Simulation, Vol. 10, No. 1, pp.12 – 25, March 2018, Inder Science publishers.
- [2] **Mohammed I. Abuashour**, Tha'er O. Sweidan, Mohammad S. Widyan, Mohammed M. Hattab and Mohammed A. Ma'itah, "Operational Performance of a PV Generator Feeding DC Shunt and Induction Motors with MPPT", International Journal of Electrical and Computer Engineering (IJECE), Vol. 9, No. 2, pp.771 – 782, April 2019, IAES publishers.
- [3] **Mohammed I. Abuashour**, Tha'er O. Sweidan, "Dynamical and Steady State Performance Analysis of DC Series Motor and Induction Motor Powered by an autonomous PV Generator Using MPPT", Int. J. Engineering Systems Modelling and Simulation, Vol. 11, No. 2, pp.68 – 83, 2019, Inder Science publishers.
- [4] Mohammad A. ALMa'aitah, **Mohammed I. Abuashour**, Mohammed Al-Hattab, Omar M. Abdallah and Tha'er O. Sweidan, "Optimization of PID Controller employing PSO algorithm for Interleaved Buck-Boost Power Electronic Converter" International Journal of Industrial Electronics and Drives (IJIED), Vol. 5, No. 1, pp.49 – 55, 2019, Inder Science publishers.
- [5] Waleed Hammad, Thaer Sweidan, **Mohammed I. Abuashour**, Haris M. Khalid, SM Muyeen, "Thermal Management of Grid-Tied PV System: A Novel Active and Passive Cooling Design-Based Approach" IET Renewable Power Generation Vol. 15, No. 12, pp. 2715-2725, 2021.
- [6] Aljdaeh, E., Kamwa, I., Hammad, W., **Mohammed I. Abuashour**; Sweidan, T., Khalid, H.M., Muyeen, S.M, "Performance Enhancement of Self-Cleaning Hydrophobic Nanocoated Photovoltaic Panel in Dusty Environment". Energies Vol. 14, No. 02, pp. 1-18, 2021.
- [7] Nagy Osman, Haris M. Khalid, Tha'er O. Sweidan, **Mohammed I. Abuashour**, S.M. Muyeen, "A PV Powered DC Shunt Motor: Study of Dynamic Analysis Using Maximum Power Point-Based Fuzzy Logic Controller", Energy Conversion and Management: X, Vol. 15, August, 2022.
- [8] Derar Al Momani, Yousef Al Turk, **Mohammed I. Abuashour**, Haris M. Khalid, S.M. Muyeen, Tha'er O. Sweidan, Zafar Said, M. Hasanuzzaman, " Energy saving potential analysis applying factory scale energy audit – A case study of food production", Heliyon, Volume 9, Issue 3, 2023.
- [9] Tha'er O. Sweidan, **Mohammed I. Abuashour**, Mohammed M Hattab, Mohammed A. Ma'itah, "Numerical Simulations for Transient Stability Analysis of Two-Machine Power System Considering Three-Phase Fault under Different Fault Clearing Times and Locations", Energy and Power, vol7, pp. 22-36, March 2017 Scientific and academic publishing USA.

- [10] Mohammad A. ALMa'aitah, Tha'er O. Sweidan, **Mohammed I. Abuashour** and Mohammed Al-Hattab "Analysis of Inter Area Power System Oscillation using Eigenvalue Method", International Journal of Contemporary Research and Review, Vol. 9, Issue.6, pp. 20417-20437, May 2018.
- [11] Mohammad A. ALMa'aitah, Mohammed Al-Hattab, **Mohammed I. Abuashour**, Tha'er O. Sweidan and Omar M. Abdallah, "The combined methodology for reducing the high model order for a continuous system using Genetic Algorithm and dominant poles methods" International Journal of Contemporary Research and Review, Vol. 9, Issue. 6, pp. 20447-20458, Jun 2018.
- [12] **Mohammed I. Abuashour**, "Dynamical and Steady State Analysis of a Standalone Hybrid PV \ Wind Power System Feeding an Induction Motor for Pumping Applications" Master's Thesis, Yarmouk University, Jun 2016.
- [13] **Mohammed I. Abuashour**, Tha'er O. Sweidan, Audai Al-Kurdi, Mohammed A. Ma'itah,, Mohammed M Hattab, Waleed hammad, Omer Abdalla "Automatic Reactive Power Compensation utilizing a Variable Excitation Capacitance for a Wind Turbine with SEIG for Feeding IM Driving a Centrifugal Pump", International Journal of Latest Engineering Science (IJLES) Volume: 03 Issue: 03 pp. 19-28, 2020.

Conferences, Workshops & Forums

- [1] Tha'er O. Sweidan, **Mohammed I. Abuashour**, Nagy Osman, "**Transient Analysis of DC Shunt Motor Supplied by Stand-alone PV System Employing FOCV for MPPT**", 2020 Advances in Science and Engineering Technology (ASET) International Conferences. IEEE Xplore.
- [2] Representing The Hashemite University, Participated in **the International Energy Security Forum** Jun20, 2019 Amman-Jordan
- [3] Participated upon invitation in the workshop (on the campus of the University of Jordan) in **ECO-CAR project**, which is supported by the European Union within the ERASMUS+ projects, Thursday 02-09-2021
- [4] Attended a (5) hours workshop (sponsored by Jordanian Engineers Association) in **machine learning APIs study plan** December 14, 2019
- [5] Attended a (3) hours workshop (sponsored by Jordanian Engineers Association) in **introduction to project planning using Primavera** July 10, 2021
- [6] Attended a (3) hours workshop (sponsored by The Hashemite University) in **Tiny Edge Machine Learning: Challenges and Opportunities for IoT Applications** Sep 30, 2021
- [7] Attended a (2) hours workshop (sponsored by Engineers Association Irbid Branch) in **Introduction to metallurgical structures**, 15/4/ 2022
- [8] Attended a (2) hours workshop (sponsored by Engineers Association Irbid Branch) in **Materials properties and testing** ,27/4/ 2022
- [9] Attended a (2) hours workshop (sponsored by Engineers Association Irbid Branch) in **Introduction to Structural shop drawings**, 17/4/ 2022
- [10] Attended a (2) hours workshop (sponsored by Engineers Association Irbid Branch) in **Introduction to safe program**, 22/4/ 2022
- [11] Attended a (2) hours workshop (sponsored by Engineers Association Irbid Branch) in **First Aid**, 18/4/ 2022
- [12] Attended a (5) hours workshop (sponsored by Engineers Association Irbid Branch) in **introduction to health, safety and environment world**, 24/4-1/5 2022
- [13] Participated in the **MENA Europe Future Energy Dialogue (MEFED-2022)** 8-9/6 2022
- [14] Attended a (2) hours workshop (sponsored by Jordanian Engineers Association) in **internet of Things** ,24/11/2022
- [15] Attended a (2) hours workshop (sponsored by TAQA SPACE) in **Technologies of Solar PV Systems**, 20/12/2022
- [16] Attended a (2) hours workshop (sponsored by TAQA SPACE) in **Fundamentals of Electric Vehicles & EV Chargers**, 12/30/2022

- [17] Attended a (4) hours workshop (sponsored by Hashemite University and hosted speakers from Jordan and the UK) **TOWARDS FARMING 5.0: DRONE-ASSISTED MICRO IRRIGATION WITH ML-ENABLED IOT NETWORK**, 8/12/2022
- [18] Attended a (2) hours workshop (sponsored by TAQA SPACE) in **Overview of Small-Scale PV System Design**, 3/1/2023
- [19] Attended a (2) hours workshop (sponsored by TAQA SPACE) in **Solar PV Systems Testing (Types & Importance)**, 6/1/2023
- [20] Attended a (1.5) hours workshop (sponsored by TAQA SPACE) in **Leadership decisions: Net Positive Energy and Negative Carbon Emissions**, 10/1/2023
- [23] Attended a (1.5) hours workshop (sponsored by TAQA SPACE) in **Drone Uses in the Solar PV Sector**, 13/1/2023
- [24] Attended a (1) hours workshop (sponsored by TAQA SPACE) in **Optimization Tips & Techniques for PV Mounting Systems**, 5/2/2023
- [25] **Certificate of attendance and passing the FTTX workshop test**, 22/1/2023
- [26] Attended a (2) hours workshop (sponsored by TAQA SPACE) in **the Metaverse webinar "The Green Hydrogen Revolution"**, 18/3/2023

Reviewed

- Reviewed for "Engineering Computations Journal"
- Reviewed for "International Journal of Electrical Engineering Education"
- Reviewed for "International Journal of Electrical and Computer Engineering"
- Reviewed for "INDERSCIENCE PUBLISHERS"
- Reviewed for "Cybernetics and Systems"

Skills

- Good knowledge in power system simulators like PSAF (Power Systems Analysis Framework) Software, Multisim Program, Arduino microcontroller programming, Highly skilled in hardware/software computer-related aspects, and MATLAB Program (M-File – Numerical simulations)
- Time management, Proactive and assertive, Team leading

Affiliations

- Jordanian Engineers Association
- The Hashemite University: Electrical Engineering Department & Renewable Energy Centre

References

- Prof. Mohammad Widyan (Associate Professor in the Electrical Engineering Department, The Hashemite University, Jordan) +962-776231738, email: mohammadwidyan@hu.edu.jo
- Dr. Ghassan Hmoud Aladwan (Former lieutenant colonel Engineer in the Royal Jordanian Airforce and nowadays is a Director of Albalqa Electronic Academy, Jordan) +962 799059054, email: Gadwan@bea.edu.jo