Prof. Dr. Marwan M. Mahmoud

Electrical Engineering Department, An-Najah National University, Nablus, Palestine
Tel: 970 9 2345113 ext 2332 ,E-mail: marwanma@najah.edu

CURRENT POSITION

Professor of Power Electronics and Renewable Energy, Electrical Engineering Department, An- Najah National University, Palestine, September 1994 – Present

EDUCATION

- **PhD in Power Electronics and Electric Energy Systems, Swiss Federal University of Technology (ETH-Zuerich), Switzerland June 1982.**

Doctoral Thesis: Investigations on Mains Current Characteristics and Load Sensitivity of Power Pulsation-Compensated Cyclo-converters with Single Phase Output. Diss. ETH - Zuerich Nr. 7092.

- **Dipl. Ing. in Electrical Engineering , Technical University Aachen (TH-Aachen), Germany 1973.**

WORK EXPERIENCE

- **Professor at (ANNU), Oct. 1994–present.**
- **Dean Hisham Hijjawi Collage of Technology, An Najah national University Nablus August 2001- Oct.2002**
- **Director of Energy Research Centre at ANNU, Nablus–Palestine, Sept. 1996- Aug. 2001.**
- **Head of Photovoltaic Department and principal researcher in the fieldof power electronics, electric machines, measurement techniques, PV,wind energy ,rural electrification, water desalination and water pumping systems at the Renewable Energy Research Centre(RERC) of the Royal Scientific**
- **Society (RSS),Amman-Jordan, Nov. 1984–Oct. 1994.**
- **Member of Foundation team of Princess Sumaya University of Technology - Amman , July 92 - Oct. 94 and chief of Electronic Eng. Department in it, July 93 - Oct. 94.**
- **Assistant Director of RERC/RSS, Amman-Jordan Feb. 88-May 1989.**
- **Acting Director of RERC/RSS, Amman-Jordan Sept. 87–Jan. 1988.**
- **Head of Wind Energy and Photovoltaic Section, RERC/RSS , Amman-Jordan Oct. 1983-Nov.1984**
- **Researcher and principal engineer in the field of photovoltaic, power electronics ,measurement techniques and wind electric systems RERC/RSS ,Amman- Jordan, Aug. 82–Nov.1983.**
- **Researcher and teaching assistant at the Institute of Automatic Control and Power Electronics, Swiss Federal University of Technology (ETH–Zurich) (Working on Doctoral Thesis) Zurich, Switzerland, Oct. 77–Aug. 1982.**
- **Principal engineer in the field of electronics maintenance, electric machines and measurement techniques, RSS, Amman- Jordan, Sept. 75–Oct. 1977.**
- **Teaching assistant and researcher in the fields of applied electromagnetic, electrical measurements and linear motors, Technical University Aachen - Germany, Jan 74–July 1975.**

Certifications or professional registrations

Member of Jordanian Engineers Association 1975-present

COMPUTER SKILLS

MS Office and Pspice

TRAINING

- **US-AID, University of Florida-Gainesville-USA Feb. 83-June 1983, Special Course on Alternative Energy Systems.**
- **Training in some German companies on different fields for short periods** .

AWARDS

- **Scholarship at Technical University Aachen - Germany: 1969-1973 to obtain the German Academic Degree Dipl. Ing. In Electrical Engineering.**
- **Scholarship from the Swiss Confederation: 1977-1982 Doctoral Candidatesat ETH-Zuerich to obtain Ph. D in Power Electronics.**
- **Honors Medal of the Swiss Federal University of Technology (ETH Zuerich) for Distinction Doctoral Thesis and Examination, June 1982.**
- **King Abdullah(1st)- Prize for Development of a Solar Matched PV Water Pumping System Used on Desert Wells, RSS-Amman , Jordan , 1995**

COURSES TAUGHT:

BACHELOR COURSES:

- Electric Circuits
- Electronics
- Power Electronics
- Measurements and Instrumentation
- Electric Machines
- Alternative Energy Systems
- Electric Machines - Measurements Laboratories
- Electronics Laboratories
- Measurements Laboratories
- Supervision of many graduation student projects from 1997-present

MASTER LEVEL COURSES:

- Renewable Energy Technology 1
- Renewable Energy Technology 2
- Supervision of twelve Master Thesis in energy engineering fields

MASTER THESISES SUPERVISED

1- Modeling and Simulation of Lead-Acid Storage Batteries within Photovoltaic Power Systems. by : Ola Subhi W. Al-Qasim ,2012

2- Design and Simulation of a Photovoltaic System with Maximum Power Control to Supply a load with Alternating Current. by: Ja'farSaif A.H.Jallad , 2012

3- Technical Impacts of Grid Tied PV on JDECO Network : Case Study (Jericho and Al-Jeeb Feeders). by: Rami Yaser M.Dasa , 2013

4- Performance Test and Techno-Economic Evaluation of a PV Powered Reverse Osmosis Brackish Water Desalination System in West Bank . by: Samer Yousef , 2013

5- Electrification of Remote Clinics by Photovoltaic –Hydrogen Fuel Cell System. by : Makawi diab Hraiz , 2013

6- Efficiency and Feasibility Borders of Water Pumping Systems Powered by Electric Grid ,Diesel Generators and PV Generators with PLC- Tracking of the Daily Solar Curve . by: Hanan Mohammad Ali , 2013

7- Technical and Financial Analysis of Using Variable Frequency Drive for Water Pumps Compared with Fixed Frequency. by: Anwar Yaser Roba , 2014
8- Ph.D-Thesis : Modeling and Optimal Design of Photovoltaic Based Hybrid Renewable Energy Systems .by : Mahmoud Salah Ismail, Faculty of Engineering-University of Malaya, Kualalumpour, Malaysia 2014
9- Computer-Aided Design and Performance Evaluation of PV-Diesel Hybrid System,by: Moien Ali Ahmad Omar 2007.
10- Simulation of Hybrid Power System Consisting of Wind Turbine, PV, storage Battery ,and Diesel generator with Compensation Network : Design, Optimization and Economical Evaluation , by : Mahmoud Salah ismail Abdel-Qader, 2008.
11- Design, Building and Techno-Economic Evaluation of Biogas Digester, by : Ola Abd Al-Rahman Abdallah Adawi, 2008
12- Techno-Economic Evaluation of Electrification of Small Villages in Palestine by Centralized and Decentralized PV System, by : Bassam Ahmad A. Abdel- Ghani, 2008
13- Design and Building of Biogas Digester for Organic Materials Gained from Solid Waste, by : Mansur- Al Sadi, 2009
14- Powering of Radio Communication Stations in Remote Areas by Solar PV : Optimal Design and Economics, by Rawan Abu Shmais, 2015 .
15- Techno- Economic Evaluation and improvement Possibilities of Local Grid Connected House-PV Power Systems , By : Alaa Inad Awwad , 2015.
16- Simulation and Design of Solar Photovoltaic Cathodic Protection Systems, by : Abdel Rahman Jamal Smamoudi, 2015.

PUBLICATIONS

REFEREED JOURNALS:

Technical Papers– (International Journals)

F.A Ahmedov, Marwan Mahmoud, P.A. Momenov, M. Amro,Experimental station for testing of photovoltaic modules characteristics, Solar Energy Technology, Academy of Science of the Soviet Union, (Moscow & Uzbekistan) ODK 621.362, Oct. 1985.

Hafez M.El.Zayyat and Marwan Mahmoud, Jordan first photovoltaic water pumping system, Dirasat, University of Jordan Vol. XIII, No. 10, Oct. 1986.

Hafez M. ElZayyat and Marwan Mahmoud, Photovoltaic power generators for radio communication systems in Jordan, IEE Proceedings, Vol. 135, Pt. C, No. 5 Sept. 1988.

Marwan Mahmoud, Experience results and techno–economic feasibility of using photovoltaic generators instead of diesel motors for water pumping from rural desert wells in Jordan, IEE proceedings, Vol. 137, Pt. C, No. 6, Nov. 1990.

Marwan Mahmoud and Ismail Nabhan, Analytical and graphical methods for determination of solar cell parameters and investigations of shadowing effect, Int. J. Solar Energy,Vol. 9, 1990.

Solar Electric Powered RO-Brackish Water Desalination in Palestine. By: Marwan M. Mahmoud, " Third International Conference on Energy &Environmental Protection in Sustainable Development" October 2013, PPU- Hebron –Palestine.

Renewable Energy in Palestine : Present Status and Possible Feasible Applications . by: Marwan M. Mahmoud, Conference organized by Deanship of Scientific Research, An Najah National University , April 2013, Nablus –Palestine

Impacts of Distributed Photovoltaic Generation on Jenin Distribution Network : Voltage Level, Power Losses ,Power Factor and Power Quality. By : Maher Khamash, Marwan M.Mahmoud ,Ibrahim A. Ibrahim and Ihsan Omareyh, Fifth International Energy Conference ,Engineers Association, October 2014 ,Ramallah –Palestine

Photovoltaic –Battery Power System for Brackish Water Desalination in Jordan Valley: Design , Field Test and Evaluation. By : Marwan M.Mahmoud , Fifth International Energy Conference ,Engineers Association, October 2014 ,Ramallah –Palestine

****Papers have been published from 1990-present, available on http://scholar.google.co.uk/citations?user=nl8xg34AAAAJ&hl=en**

REFERENCES:

Available upon request