

CURRICULUM VITAE

Dr. Eng. Ayman Agha

PhD., Electrical ,

*Certified Consultant in
Electrical Power Engineering and Projects*

(Assistant Professor- Philadelphia University)

Personal Data

Address Amman - Jordan
University Region

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Academic Degrees:

1997 Doctorate of Philosophy in Technical Engineering.
Major: Electrical Power Engineering.
Specialization: Electrical Power Systems and Control Networks.
Dissertation Thesis: The Optimum Allocation of Reactive Power Sources in the Electrical System by Using the Incremental Losses of Active Energy due to the Flow of Reactive Power.

1989 Master of Science in Electrical Power Engineering (Hons) .
Master Thesis: The Technical and Economical Problems of Power and Energy Losses in the Electrical Power System.
Department: Electrical Engineering, Automatics and Electronics.
University: AGH - University of Science and Technology – Cracow –Poland,
(Akademia Górniczo-Hutnicza im. Stanisława Staszica).

Academic Experience

2015 Sept. - till date Associated professor - Department of Electrical Engineering - Philadelphia University- Jordan.

2014 - June -2015 Part-time Lecturer - Department of Electrical Engineering - Philadelphia University- Jordan.

Teaching Courses

- Electrical Circuit (2).
- Electric Machine (1).
- Electric Machine (2).
- Electrical Installations.
- Electrical Transmission and Distribution Network Design.
- Entrepreneurship
- Power System (1)
- Power System (2)

Professional Experience

- 2013 – 2014 Independent consultant work for businesses of Electrical and Energy on a project-by-project basis.
- 2011- Aug. 2013 Business Development Department team at Jordan Phosphate Mines Co. (JPMC), Head Office, Amman – Jordan.
Job Duty Includes:
Looking for business development possibilities for JPMC, whether for the new established projects or for the Revamping works of the existing projects.
Dealing with all activates related to the Business Development of the projects such as (projects' evaluation, correspondences, feasibility study & agreements).
Joint Venture (JV) project.
Where, the subjected projects values are in general Mega projects.
- 2010 - 2011 Aqaba New Phosphate terminal- JPMC, (at Aqaba Gulf, i.e. 350 Km from JPMC's- Head Office "Amman").
The project was dealt with the construction of a new jetty for unloading, storing, transporting and loading phosphate into the ships. Where the estimated cost of the project is around 240 Million USD.
Job duty include: Involved in line with the Main Consultant of the project (M/s Royal Haskoning- Holland) for all consultancies activates related to the project especially for the electrical and energy aspects.
- 2004 - 2010 Projects & Development Department- (JPMC), Amman – Head Office, with the following activities:
Projects Engineer ;
Job Duty Includes; Bid documents preparation; Design and determine the technical and commercial requirements. Technical specification and the applicable standards for the required equipment. Study and evaluate the received offers.
In charge for electrical energy aspects and problems at the company.
Design, review, supervision and taking over from the contactor of all the renovation works (specially the electrical works) that performed during 2006/2007 at JPMC's head Office "Amman" Building (around 6000 m²).
In charge for all electrical energy aspects in the Projects Department.
- 2000- 2004 Studies & Design Department Manager "Bid Dept."- (alfanar co., Riyadh - KSA).
alfanar Construction Co., Head Office - *Riyadh* - KSA, (www.alfanarconstruction.com). Where; alfanar is classified as Grid "A" EPC Contractor in the Electrical Sector and it is one of the biggest 100 companies in KSA. Specialized in electrical projects construction such as electrical substation and transmission lines (i.e., low, medium and High voltage till 380 kV), generation etc.

Job Duty Includes;
 Managing, planning, and designing all contractual activities;
 Contracts negotiations, agreements preparation and discussing with the local clients (in KSA) or abroad.
 Projects' estimation cost, market analysis, forecasting, feasibility studies, conclusions and recommendations.
 In Charge for *Business Development Department Manager*.

1997- 2000 Projects Department- (JPMC), Amman – Head Office.
 Electrical Engineer;
 Job Duty Includes; Dealt with all activates related to Projects.
 Member of the JPMC's Committee for Procurement.

1997- 1989 Aqaba Industrial Chemical Complex- (JPMC) - Fertilizer Unite Aqaba- Jordan.
 Job Duty Includes; Daily and periodic maintenance of chemical plants' and power plant. Operation and preventive maintenance of the low voltage and medium voltage of the chemical complex network (motors, CB, transmission lines, etc.).

Summary of Expertise

- Academic teaching.
- Renewable Energy “Solar”.
- Chemicals “Fertilizer” and Industrial.
- Maintenance & Preventive Maintenance.
- Electrical Substations (LV, MV & HV), Transformers, Transmission lines, Control & Protection etc.
- Power Plant (diesel & thermal).
- Business Development Management.
- Proposals/ Contracts Management.
- Consultancy Activities
- Projects and Market Analyses (forecasting, planning)
- Feasibility Studies (IRR, NPV, Payback period etc.).
- Projects' Construction
- Energy Economics (Electrical losses “Technical & Economical, Load flow, Short circuit, compensation).
- Energy Saving & Energy Management.
- Research & Development.

Honours

Academics

1994-1997 Scholarship (Doctoral Studies), AGH - University of Science and Technology (Cracow – Poland), International students program.

1982-1989 Scholarship of the Ministry of Education -Jordan for (BESc /MSc degree).

1989 Achievement the MSc with honour degree (distinguished diploma).

1988-1989 Rector's Reward of the University AGH - University of Science and Technology in the fourth and fifth years due to results of the studies, Cracow - Poland.

1987 Dean Reward of the University of Bialystok in the third year due to the result of studies, Bialystok - Poland.

2009 Certificate of Appreciation, Jordan Engineering Association, Jordan, 2009.

Practices

2013	Certificate of Consultant Engineer, Rank: Consultant in Electrical Power Engineering and Projects. Issued by: Jordan Engineers Association - Professional Qualification and Accreditation Council (PQAC)
2004	alfanar Company Order (<i>Riyadh, KSA</i>) "Thanks and appreciation for loyalty and good efforts achieved for the company during the working period in alfanar".
1992	Thanks letter from the Maintenance Director (<i>Fertilizer unit – Aqaba</i>) due to repairing and renewing of the high voltage switch gear.
1991	Thanks letter from the Plant Manager (<i>Fertilizer unit – Aqaba</i>) due to producing spare parts for the high voltage switchgear in critical time.

(2014- till date)

During the Work at Philadelphia University).

- Recognition Shield, Jordan Engineering Association, Jordan, 2018, (For the supervision of the winners (second place) of the electrical engineering projects in the annual competition organized by the Jordan Engineers Association (JEA), and recognizes outstanding graduation projects of engineering students in Jordan for the year 2017.
- Appreciation Certificate, Jordan Engineering Association, Jordan, 2018.
- *Appreciation Certificate, Philadelphia University, Amman, 2018.*

Certificates

2013 – 2016	Certificate of Consultant Engineer, Rank: Consultant in Electrical Power Engineering and Projects. Issued by: Jordan Engineers Association - Professional Qualification and Accreditation Council (PQAC).
2016 – 2019	
2019 - forever	

Memberships

- Membership of National Electrical Power Committees for:
 - Transmission Grid Code & Metering Code; Member of the Review Panel Committee (representing the large customers in Jordan), from July 2004 till Aug. 2013.
 - Connection Code Produced by NEPCO, Since July, 2005 till Aug. 2013.
- Member of the Classification Committee of Electrical Engineering division – Jordan Engineers Association, since May 2009 till date.
- Member of Jordan Engineers Association -Electrical division –, since 1989 till date.

Proficiency in languages

Arabic; Native proficiency. English; Professional working proficiency. Polish; Professional Studying proficiency.

Scientific Researches

1. Ayman Agha, "Probabilistic Approach for Reactive Power Compensation". Dirasat, Engineering Sciences, p265-271, Vol.26, No.2, October 1999 (Amman –Jordan).
2. Ayman Agha, "VAR Planning for Radial Distribution System". GCC- Cigre Al-Khaleej Electricity Magazine, p22-29, Ninth issue 2001.
3. Nabeel Tawalbeh, Ayman Agha, "Statistical Approach for the Analyses of Energy System Losses in Jordan". MESM' 2005 7th Middle Eastern Simulation Multiconference, p27-32. 24-26th October 2005, (Porto – Portugal).
4. Ayman Agha, Nabeel Tawalbeh " Economic Discussion on Power Factor Penalties Tariff" 7th Cigrre Regional Conference 2007, (JOA099) 3-5 Sept, 2007 (Amman – Jordan).
5. Nabeel Tawalbeh, Ayman Agha, "Reducing the Power Factor Penalty of the Industrial Sector Due to Jordanian Tariff (METH_01). The European Multidisciplinary Society for Modeling and Simulation Technology, (ESM07), 22-24 Oct. 2007 (Malta).
6. Ayman Agha, "Electrical Energy Commercial losses - Problems & Solutions" Electricity Regulatory Commission workshop 22 Dec. 2008, Amman – Jordan.
7. Ayman Agha, Amer Agha, "Supplying Energy for Green Village System". International Conference on Renewable Energy and its Future in the Arab World 2013 ,, (ICREFAW Conference 2013), April 22-24, 2013, Petra University- Amman, Jordan.
8. Ayman Agha, Audih Alfaoury, "Commercial losses in Jordanian Electrical System,, 2016 13th International Multi-Conference on Systems, Signals & Devices (SSD) - Conference on Power Systems & Smart Energies-, March 21-24, 2016, Leipzig , Germany.
9. Ayman Agha, Audih Alfaoury, "Long -Term Energy Losses Analyses for Jordanian Power System" Power Systems and Smart Energies System. DE GRUYTER –GERMANY, ISSN Print 2364-7493, ISSN Online 2364-7507, 2016. (*Accepted for Publication*).
10. Ayman Agha "A New Algorithm for Reactive Power Compensation in Industrial Plant" Jordan Journal of Electrical Engineering (JJEE), Vol. 2, No. 3, pp 241-252, 2016.
11. Ayman Agha, Audih Alfaoury , "A Dynamic Approach to Linear Statistical Electrical Energy Losses Analyses (Comparative Case Study)" WSEAS Transactions on Systems, ISSN / E-ISSN: 1109-2777 / 2224-2678, Volume 16, 2017, Art. #32, pp. 279-288.
12. Ayman Agha, "A New Approach for Load Loss Factor Estimation in Electrical Distribution Networks" International Journal on Energy Conversion (IRECON), ISSN 2281-5295, pp148-153, Vol 5, No 5, September 2017.
13. Ayman Agha " Economic Evaluation of Transformer Selection in Distribution Systems" Jordan Journal of Electrical Engineering (JJEE), Volume 4, Number 2, pp 88-99, 2018.
14. Ayman Agha, Hani Attar, Audih Alfaoury, Mohammad R. Khosravi. "Maximizing Electrical Power Saving Using Capacitors Optimal Placement", Recent Advances in Electrical & Electronic Engineering. 2020, vol. 13, iss. 1, ISSN 2352-0973, DOI: 10.2174/2352096513666200212103205.