

Date: 12-April -2025



CURRICULUM VITAE

PERSONAL INFORMATION

Faculty Member Name: Ayman Abdel-Karim Mohammad Agha
Academic Rank: Associate Professor
College: Engineering
Department: Renewable Energy Engineering
Nationality: Jordanian
Address: Jordan- Amman, Dahiat Al-Rasheed.
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ACADEMIC QUALIFICATIONS

Degrees with fields, institution, and date

- B.Sc. & MSc. (Hons.) in Electrical Power Systems and Control Networks, AGH - University of Science and Technology, Cracow – Poland, 1982-1989. Master Thesis: The Technical and Economic Problems of Power and Energy Losses in the Electrical Power System
- Ph.D. in Electrical Power Systems and Control Networks, AGH - University of Science and Technology, Cracow – Poland, 1994-1997. 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.

ACADEMIC EXPERIENCE

- Duration: 10 Years
- University: Department of Electrical Engineering - Philadelphia University- Amman, Jordan (2014- 2023) + Amman Arab University (2023- till now)
- Academic Rank: Associate Professor
- Date the rank was granted: 2022
- The body granting the rank: Philadelphia University- Amman, Jordan.

- College: Engineering
- Country: Jordan

NON-ACADEMIC EXPERIENCE

- Duration: 24 years
Institution: Jordan Phosphate Mines Co. (JPMC) – Aqaba Complex Plant (Fertilizer Unit) and JPMC Headquarters in Amman. This experience also includes approximately 4 years at Alfancar Company as the Studies & Design Department Manager (Riyadh, KSA). Alfancar specializes in electrical project construction, including electrical substations, transmission lines (low, medium, and high voltage up to 380 kV), and power generation.

- Department: JPMC – Jordan & alfancar- Riyadh- KSA with several areas of expertise:

- Chemicals “Fertilizer” and Industrial.
- Maintenance & Preventive Maintenance.
- Electrical Substations (LV, MV & HV) Transformers, Transmission lines, Control & Protection, etc.
- Power Plant (diesel & thermal).
- Renewable Energy “Solar”.
- 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.

- Country: Jordan – Aqaba & Amman and Saudi Arabia- Riyadh

CERTIFICATIONS OR PROFESSIONAL REGISTRATIONS

Consulting Engineer Certificate (Consultant in Electric Power Engineering and Projects), issued by the Jordanian Engineers Association – Qualification and Professional Accreditation Committee (PQAC)-20213. After being granted

twice consecutively, each for a duration of 3 years, it was renewed for a third time with lifetime validit

CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Jordanian Engineering Association 1989- till now.

HONORS AND AWARDS

▪ 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 (BSc /MSc degree).
- 1989 Achievement of the MSc with an honor 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.

▪ 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 (Riyadh, KSA) “Thanks and appreciation for loyalty and good efforts achieved for the company during the working period in alfanar”.

- 1992 Thanks and appreciation letter from the Maintenance Director (Fertilizer unit – Aqaba) due to repairing and renewing the high voltage switchgear.
- 1991 Thanks, and appreciation letter from the Plant Manager (Fertilizer unit – Aqaba) due to producing spare parts for the high voltage switchgear at a critical time.
- 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.
 - Awarded the *Shield of the Jordanian Engineers Association* (Electrical Engineering Division) in recognition of efforts in serving the profession and fellow engineers during the 28th session (2018–2022).
 - Received the *Recognition Shield* from the Jordan Engineers Association (JEA) in 2018 for supervising the winners of second place in the annual competition for outstanding electrical engineering graduation projects in Jordan (2017).
 - Received an *Appreciation Certificate* from the Jordan Engineers Association in 2018.
 - Received an *Appreciation Certificate* from Philadelphia University, Amman, in 2018.
 - Actively participated in various electrical power and energy events held in Amman, Jordan, with notable memberships including:

THE MOST IMPORTANT PUBLICATIONS IN LAST FIVE YEARS

Journal publications:

- **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.
- **Ayman Agha** “Economic Evaluation of Transformer Selection in Distribution Systems” Jordan Journal of Electrical Engineering (JJEE), Volume 4, Number 2, pp 88-99, 2018.

- **Ayman Agha**, Audih Alfaoury, “Long-Term Energy Losses Analyses for Jordanian Power System” Power Systems and Smart Energies System -11. Walter de Gruyter GmbH & Co KG. - Feb 10, 2020. Classification 65C05, 62M20, 93E11, 62F15, 86A22. pp49-58.
- **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, issue. 1, ISSN 2352-0973, DOI: 10.2174/2352096513666200212103205.
- **Ayman Agha**, Hani Attar, Ashish Kr. Luhach, „Optimized Economic Loading of Distribution Transformers Using Minimum Energy Loss Computing“, Hindawi - Mathematical Problems in Engineering, Volume 2021, Article ID 8081212, ISSN 15635147 <https://doi.org/10.1155/2021/8081212>.
- Mohammed Baniyounis, **Ayman Agha**, Hudefah Al-kashashneh, Abdullah Al-Omouh “Economic Evaluation of Induction Motor Based on Motor’s Nameplate Data and Initial Cost”, International Journal of Power Electronics and Drive System (IJPEDS), Vol 13, No 3, September 2022, pp. 1340~1351, ISSN: 2088-8694, DOI: 10.11591/ijpeds.v13.i3.pp1340-1351.
- Khaled Alzaareer, **A. Agha**, Q. Salem, C. Z. El-Bayeh, M. Zellagui, and Murad Al-Omary, “Development of Voltage Stability-Based Bus Dependency Matrix For Modern Power Networks,” Energy, pp. 134875–134875, Feb. 2025, issn:0360-5442, doi: <https://doi.org/10.1016/j.energy.2025.134875>.
- Hudefah Al-kashashneh, **Ayman Agha**, Mohammed Baniyounis, " A New Approach for Optimal Sizing and Allocation of Distributed Generation in Power Grids", International Journal of Power Electronics and Drive Systems (IJPEDS), *The acceptance letter for publication was received on 29-03-2025.*

▪ INSTITUTIONAL PROFESSIONAL DEVELOPMENT ACTIVITIES IN THE LAST FIVE YEARS

- Member and Vice-Chair of the Interview and Professional Accreditation Committee – Electrical Engineering Division – Jordan Engineers Association, since 2009, and for several terms, the most recent starting from 15-06-2022 and continuing to date.

- Participation in the Ninth Scientific Research Conference in Jordan organized by the Jordanian Association for Scientific Research, Innovation, and Creativity, held on November 9-11, 2019.
- Rewiring Several Review of Nine (9) papers for the conference titled: 2nd Engineering International Conference on Electrical, Energy, and Artificial Intelligence (EICEEAI) 2023, IEEE Technical Sponsorship Reg. No. is 60672, Zarqa University, Jordan, 27-28 Dec, 2023.
- Reviewer three (3) scientific papers for CSEI 2024 - VI Congress of Computer, Electronic, and Industrial Science, October 21-25, 2024, in Ambato, Ecuador.
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RESEARCH LINK (Scopus and Google Scholar)

- <https://orcid.org/0009-0005-5042-0884>
- <https://www.researchgate.net/profile/Ayman-Agha>
- <https://www.scopus.com/authid/detail.uri?authorId=56112219300>
- <https://scholar.google.com/citations?user=0pky9l8AAAAJ>
- <https://www.webofscience.com/wos/author/record/CAJ-1439-2022>

LANGUAGES

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