

Nahda University

Faculty of Engineering



دليل السيرة الذاتية

للسادة أعضاء هيئة التدريس والهيئة المعاونة

برنامج هندسة الطاقة الكهربائية والمتجددة

بكلية الهندسة جامعة النهضة بني سويف

اصدار اغسطس 2026



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السيرة الذاتية لأعضاء هيئة التدريس



السيرة الذاتية للأستاذ الدكتور: نجار حسن سعد حمدان

Curriculum Vitae

1. Personal Information Curriculum Vitae

1. Personal Information

Name: Naggar Hassan Saad Hemdan

Academic Rank: Full Professor

Department: Electric Power & Machines

College: Engineering

University: Ain Shams



E-mail: naggar_hassan@yahoo.com & naggar_hemdan@eng.asu.edu.eg

Tel. : 02 23402905

Mobile: 0122 4338529

Education (degree, discipline, institution, year)

PhD	Electrical Power and Machines	Faculty of engineering – Ain Shams University - Egypt	2003
MS	Electrical Power and Machines	Faculty of engineering – Ain Shams University - Egypt	1993
BS	Electrical Power and Machines	Faculty of engineering – Ain Shams University - Egypt	1987

Academic Experience (institution, rank/title, years, full time or part time)

Faculty of engineering – Ain Shams University - Egypt	Professor in Electrical Power and Machines Department	2017 - present	Full-time
Faculty of engineering – Ain Shams University - Egypt	Associate Professor in Electrical Power and Machines Department	2010 - 2017	Full-time
Faculty of engineering – Ain Shams University - Egypt	Assistant Professor in Electrical Power and Machines Department	2003 - 2010	Full-time
Faculty of engineering – Ain Shams University - Egypt	Teaching Assistant in Electrical Power and Machines Department	1987 - 2003	Full-time

Non-academic Experience (company/entity, title/position, years, full time or part time)

- Center of Excellence for Energy and Water development, researcher, 2020 – present, part-time.
- Electrical power consultancy, Faculty of engineering – Ain Shams University, consulate engineer, 2005- 2015, part time.

Certifications or Professional Registrations: [example:] Professional Engineer
None

Current Membership in Professional Organizations:

- The Egyptian Syndicate for Engineers, 1987 - Present
- The Egyptian ministry of Electrical and Energy, 2004 - 2020
- The Egyptian ministry of Industry, 2011 – 2016
- The organization of specification and quality 2013 – 2019

Honors and Awards (selected):

1987 Faculty of engineering – Ain Shams University -Egypt, BS, Excellent Degree with Honor , Award

Service Activities (selected):

- Reviewer, Ain Shams Engineering Journal, 2013 - present.
- Reviewer, Applications of Modelling and Simulation (AMS) Joirnal,2022 - present
- Reviewer, IEEE transaction on power electronics, 2017 - present.
- Reviewer, The International Journal of Electrical Engineering , 2022-present.
- Faculty of engineering – Ain Shams University quality reviewer member, 2018 - present.

Research Projects/Grants:

No.	Research Title	Duration	Grants (LE)	Co-investigator(s)
1	Usaid	2 years	500.000	Lab development

6. Publications

a- Total number of publications

Publication:	Patent	Journal papers	Conference Papers	Workshop	Abstract/ Discussion	Reports	Books	Total no.
No.:	-	37	21	15	-	10	-	83

Most Recent Principal Publications:

1. Samy, M. Mokhtar, Naggar H. Saad, A. Abd El-Sattar, "Modified hybrid PWM technique for cascaded MLI and cascaded MLI application for DTC drive," in International Journal of Power Electronics and Drive Systems, vol. 13, no. 1, pp. 47-57, 2022, doi: 10.11591/ijpeds.v13.i1.
2. M. Samy, Naggar H. Saad, A.Y. Hassan, and M. Mokhtar, "Hybrid optimized droop control for DC microgrid with storage element based on CMPN algorithm," in Ain Shams Engineering Journal, vol. 16, no. 9, 2025, doi: 10.1016/j.asej.2025.103520.
3. M. Samy, Naggar H. Saad, A.Y. Hassan, and M. Mokhtar, "Enhanced DC microgrid voltage stability via adaptive synergetic control with disturbance observation and zebra optimization," under review.

4. Mahmoud Samy, Mohamed Mokhtar, Naggar Hassan Saad, Ahmed Abd El-Sattar, "Modified hybrid PWM technique for cascaded MLI and cascaded MLI application for DTC drive", International Journal of Power Electronics and Drive Systems (IJPEDS), March 2022, pp. 47-57.
5. YEA Eldahab, NH Saad, A Zekry, "Enhancing the energy utilization of hybrid renewable energy systems", International Journal of Renewable Energy Research (IJRER) 10 (4), 2020, pp. 1974-1987.
6. YEA Eldahab, NH Saad, A Zekry, "Assessing wind energy conversion systems based on newly developed wind turbine emulator", International Journal of Smart Grid-ijSmartGrid 4 (4), 2020, pp. 139-148
7. Mostafa R. Mostafa, Naggar H. Saad, Ahmed A. El-sattar, "Tracking the maximum power point of PV array by sliding mode control method", Ain Shams Engineering Journal, October 2020, pp. 119-131.
8. Naggar H. Saad, Ahmed A. El-Sattar, and Mohamed E. Metally, "Artificial Neural Controller for Torque Ripple Control and Maximum Power Extraction for a Wind System Driven by Switched Reluctance Generator" Ain Shams Engineering Journal, May 2017, pp. 2255-2264
9. 35- Naggar H. Saad, Ahmed A. El-Sattar, and Abd el-Aziz M. Mansour, "A Novel Control Strategy for Grid Connected Hybrid Renewable Energy Systems using Improved Particle Swarm Optimization" Ain Shams Engineering Journal, May 2017, pp. 2195-2214.
10. 36- Naggar H. Saad, Ahmed A. El-Sattar, and Mohamed I. Marei, "Improved Bacterial Foraging Optimization for Grid Connected Wind Energy Conversion System Based PMSG with Matrix Converter", Ain Shams Engineering Journal, May 2017, pp. 2183-2193.
11. Yasser E. Abu Eldahab, Naggar H. Saad, and Abdalhalim Zekry, "Enhancing the tracking techniques for the global maximum power point under partial shading conditions", Renewable and Sustainable Energy Reviews (*Elsevier*), June 2017, Vol. 73, pp. 1173-1183.
12. Naggar H. Saad, Ahmed A. El-Sattar, and Mahmoud A. Gad, "Sensorless Field Oriented Control Based on Improved MRAS Speed Observer for Permanent Magnet Synchronous Motor Drive", 2016 Eighteenth International Middle East Power Systems Conference (MEPCON), Dec 2016, pp. 991 – 998.
13. Naggar H. Saad, Ahmed A. El-Sattar, and Mohamed I. Marei, "A Current Controlled Matrix Converter for Wind Energy Conversion Systems based on Permanent Magnet Synchronous Generator", Journal of Electrical Systems and Information Technology (*Elsevier*), March 2016, Vol. 3, pp. 108-118.
14. Yasser E Abu Eldahab, Naggar H Saad, and Abdalhalim Zekry, "Enhancing the design of battery charging controllers for photovoltaic systems", Renewable and Sustainable Energy Reviews, May 2016, Vol. 58, pp. 646-655.
15. Naggar H. Saad, Ahmed A. El-Sattar, and Abd El-Aziz M. Mansour, "Improved Particle Swarm Optimization for Photovoltaic System Connected to the Grid with Low Voltage Ride Through Capability", Renewable Energy, January 2016, Vol. 85, pp 181-194.
16. Naggar H. Saad, Ahmed A. Sattar, and Abd El-Aziz M. Mansour, "Low voltage ride through of doubly-fed induction generator connected to the grid using sliding mode control strategy", Renewable Energy, August 2015, Vol. 80, pp 583-594.

17. **Naggar H. Saad**, “Backstepping Nonlinear Control Strategy for Dynamic Voltage Restorer Using Multilevel Inverter”, The 16th International Middle East Power Systems Conference (MEPCON’14), 2014.
18. Yasser E Abu Eldahab, **Naggar H. Saad**, and Abdalhalim Zekry, “Enhancing the maximum power point tracking techniques for photovoltaic systems”, Renewable and Sustainable Energy Reviews, December 2014, Vol. 40, pp 505-514.
19. **Naggar. H. Saad**, Ahmed. A. El-sattar, and Nessreen. M. Rady, “Active Filtering and Stability Analysis for Hybrid Renewable Nanogrid”, Journal of Electrical Engineering (jee.ro), No. 3, Vol. 14, 2014, pp. 92-104.
20. Anwar Sahbel, **Naggar Hassan**, Magdy M Abdelhameed, and Zekry, Abdelhalim, “Experimental Performance Characterization of Photovoltaic Modules Using DAQ”, Energy Procedia, 2013, Vol. 36, pp 323-332.

Citations

Citations	1043
h-index	16
i10-index	19

Most Recent Professional Development Activities:

- Member at the culture committee - Faculty of Engineering – Ain Shams University, 2018 - 2022.
- Member at the cigre committee – Ministry of Electricity, 2014 - present
- Academic coordinator and advisor at the energy and renewable Energy Program - Faculty of Engineering – Ain Shams University, 2014 – 2023.



السيرة الذاتية للأستاذ الدكتور: محمد محمود سامى عبد العزيز

Curriculum Vitae

Prof. Mohamed Mahmoud Samy

(World's Top %2 Scientists)

First: Personal Data

Name	Mohamed Mahmoud Samy Abdel-Aziz
Date of birth	22-5-1972
Place of birth	Sharkia, Egypt
Religion	Moslem
Nationality	Egyptian
Address	Saft Zurek – Diyarb Najm – Sharkia – Egypt
Emails	Mohamed_samy227@yahoo.com Mohamed_227@hotmail.com Mohamed.samy@eng.bsu.edu.eg
Web page:	http://www.indust.bsu.edu.eg/homepage.aspx?Pid=513
Google Scholar link	http://scholar.google.com/citations?user=_ThFyBwAAAAJ&hl=en
Research-gate link	https://www.researchgate.net/profile/M_Samy/reputation?ev=prf_rep_tab
Web of Science Researcher ID	ABB-4668-2020
ORCID ID	https://orcid.org/0000-0002-3716-0564
Scopus Author ID	55588489900
Telephone	Home: +20553762047 Mobile: +201003320410
Military status	Exempted
Marital status	I am married and have three kids (one daughter and two boys)

Second: Education

General Department	Electrical Engineering
Ph.D.	Electrical Power Engineering Awarded in December 2011 – Cairo University, Faculty of Engineering, Electrical Power, and Machines Department
Ph.D. Thesis Title	Passive and Active Mitigation of Electromagnetic Fields around Over Head Transmission Lines
Master	Awarded in August 2007 – Zagazig University, Faculty of Engineering, Electrical Power, and Machines Department
Master Thesis Title	Use of Genetic Algorithms for Assessment of Shield Effect on Electric Field Profile underneath EHV Transmission lines
Bachelor	June 1995 – Banha University, Faculty of Engineering, Electrical Engineering Department

General Grade

Very Good

Third: Languages

Arabic

Native

English

I have very good writing, speaking, and understanding.

French

Good

Fourth: Computer Skills

Excellent management of Windows Operating Systems.

Excellent use of internet programs.

Excellent user of *Microsoft Office and its Applications*

Excellent user of Electrical Application Programs such as ORCAD, MATLAB, LABVIEW, SIMARIS, ECODIAL, ETAP, PSCAD, PSSE, DIgSILENT_PowerFactory, and COMSOL.

Excellent knowledge of troubleshooting computer hardware problems.

A programmer using: MATLAB and VHDL (Very High-Speed Integrated Circuit Hardware Descriptive Language)

Awarded the International Computer Driving License (ICDL)

Fifth: Previous Jobs

- 1- Part-time Engineer at Water Service D  a-Egypt Company, from 1-8-1995 to 20 -1 -1997.
- 2- Part-time Engineer at ELSWEDY Cables Company, from 1-2-1997 to 27-4 -1999
- 3- An instructor at the faculty of engineering, Banha University, Banha, Egypt, from 1-10-1995 to 1-7-2007
- 4- Part-time instructor at Modern Academy for Engineering and Technology in Maddi, during the academic year of 2003.
- 5- As an assistant lecturer at Higher Technological Institute (HTI), 10th of Ramadan City, Egypt, from 1-9 -2007 to 11-10-2010
- 6- As an assistant lecturer at the Faculty of Technology and Education, Beni-Suef University, Beni-Suef, Egypt, from 12-10-2010 to 1-12-2011
- 7- An Assistant Professor at the Faculty of Technology and Education, Beni-Suef University, Beni-Suef, Egypt from 2-12-2010 to 6-3-2016.
- 8- On leave as a Full Professor at the faculty of engineering, Albaha University, Albaha, Kingdom of Saudi Arabia from 7-3 -2016 to 6-5-2021.
- 9- Manager of consultation Unit in Beni-Suef University from 28-12-2021 till 31-7-2022
- 10-Serving as an Associate Professor and a chief of Electrical Engineering department at the Faculty of Engineering, Beni-Suef University, Beni-Suef, Egypt since 12-9-2021- 16-9-2023.
- 11-Now serving as a Full Professor and a chief of Electrical Engineering department at the Faculty of Engineering, Beni-Suef University, Beni-Suef, Egypt since 16-9-2023 till now.
- 12-Co-Editor-in-Chief of the Journal of Engineering Science and Sustainable Industrial Technology, Faculty of Engineering, Beni-Suef University, Beni-Suef, Egypt.

- 13-Associate -Editor-in-Chief of the Journal of Beni-Suef University Journal of Basic and Applied Sciences, Beni-Suef University, Beni-Suef, Egypt
- 14-Full Professor and Quality coordinator at the Electrical Engineering department, Faculty of Engineering, Beni-Suef University, from 1-8-2021 to 01-8-2026
- 15-Dean of Engineering and Basic Science sector at Beni-Suef National University from 02-8-2026 till now.

Sixth: Consultations

- 1- Consultant and Certified Instructor at Oil and Gas Skills Company (OGS), one of the Egyptian Petroleum Companies.
- 2- Consultant for a design study of the interconnection of New Banha Station to the Consolidated Electric Grid of Egypt through a 220 kV Transmission Line.
- 3- Consultant for Feasibility and Design Study of Interconnection of the Electric Grid of Egypt to the Electric Grid of Kingdom Saudi Arabia (KSA) via HVDC Transmission Line of ± 500 kV.
- 4- Technical Program Committee member (TPC) for The Third International Conference on Energy Engineering and Environmental Protection EEEP 2018.
<http://www.iceeep.org/Committee.aspx>
- 5- Technical Program Committee member (TPC) of The Third International Conference on Energy and Power Engineering EPE 2020.
<http://www.epe-conf.org/com.html>.
- 6- Technical Program Committee member (TPC) of The Second International Conference on Energy, Power, and Environmental System Engineering ICEPESE2021.

Seventh: Publications

1. **M. M. Samy**, Abdel-Lateef Elzien, and M. Abdel-Salam, "Electric Field Profiles and Right-of-Way Widths as Influenced by Grounded Shield Wires Underneath EHV Direct Current Transmission Lines," Proceedings of the 6th International Conference on Electrical Engineering (ICEENG), 27 – 29 May 2008, Military Technical College, Cairo, Egypt. [DOI: 10.21608/iceeng.2008.34353](https://doi.org/10.21608/iceeng.2008.34353).
2. **M. M. Samy**, R. M. Radwan, M. Abdel-Salam, and A. M. Mahdy, "Mitigation of Electric Fields Underneath EHV Transmission Lines Using Active and Passive Shield Wires," Proceedings of the 8th Regional Conference for National Committee of CIGRE in the Arab Countries, October 18 – 20, Doha, Qatar, 2010.
3. **M. M. Samy**, R. M. Radwan, M. Abdel-Salam, and A. M. Mahdy, "Laboratory Validation of Calculations of Magnetic Field Mitigation Underneath Transmission Lines Using Passive and Active Shield Wires," Innovative Systems Design and Engineering Journal, ISSN 2222 – 1727 (Paper) ISSN 2222-2871 (Online), Vol. 2, No. 4, pp. 218 – 232, 2011.
4. **M. M. Samy**, R. M. Radwan, M. Abdel-Salam, and A. M. Mahdy, "Electric Field Mitigation Underneath Extra High Voltage Power Lines," IEEE Transaction on Dielectric and Electrical Insulation, No.1, Vol. 20. 2013. [DOI:10.1109/TDEI.2013.6451341](https://doi.org/10.1109/TDEI.2013.6451341) (IF=1.5, Q2 Web of Science)

5. **M. M. Samy**, "Optimum Number of Grounded Shield Wires Underneath Extra High Voltage Direct Current Transmission Lines," Innovative Systems Design and Engineering Journal, ISSN 2222 – 1727 (Paper) ISSN 2222-2871 (Online), Vol. 5, No.11, pp. 39 – 49, 2014.
6. **M. M. Samy**, R. M. Radwan, M. Abdel-Salam, and A. M. Mahdy, "Passive and Active Shielding of Magnetic Fields Underneath EHV Transmission Lines: Theory versus Experiment," Proceeding of the 17th International Middle East Power System Conference (Mepcon'15), Mansoura, Egypt, 16 – 18 – Dec. 2015. **(Indexed in Scopus)**
7. **M. M. Samy**, R. M. Radwan, and S. Akef, "Calculation of Electric Fields underneath Ultra High Voltage Transmission Lines," Proceeding of the 17th International Middle East Power System Conference (Mepcon'15), Mansoura, Egypt, 16 – 18 – Dec. 2015. **(Indexed in Scopus)**
8. **M. M. Samy**, and R. M. Radwan, "Calculation of Electric Fields underneath Six phase Transmission Lines," Proceeding of the 4th International Conference on Renewable Energy: Generation and Applications, Belfort, France, 8 – 10 – Feb. 2016.
9. **M. M. Samy**, and R. M. Radwan, "Calculation of Electric Fields underneath Six phase Transmission Lines," Journal of Electrical Systems (JES), Vol. 12, No.4 (2016): pp. 839-851. [DOI:10.1109/EEEIC.2017.7977420](https://doi.org/10.1109/EEEIC.2017.7977420) (SJR=0.4, Indexed in Scopus)
10. **M. M. Samy**, and S. Barakat "Feasibility Study of Grid Connected PV-Biomass Integrated Energy System in Egypt," Proceeding of the 4th International Conference on Renewable Energy: Generation and Applications, Belfort, France, 8 – 10 – Feb. 2016.
11. **M. M. Samy**, S. Barakat, M. B. Eteiba and Wael Ismael Wahba, "Feasibility Study of Grid Connected PV-Biomass Integrated Energy System in Egypt," International Journal of Emerging Electric Power Systems (IJEPS), Vol. 17, No. 5, pp, 519–528, 2016. <https://doi.org/10.1515/ijeeps-2016-0056> (SJR=0.6, Indexed in Scopus)
12. **M. M. Samy**, S. Barakat, M. B. Eteiba and Wael Ismael Wahba, "Viability Study of Grid Connected PV/Wind/Biomass Hybrid Energy System for a Small Village in Egypt," Proceeding of the 18th International Middle East Power System Conference (Mepcon'16), Helwan, Egypt, 27 – 29 – Dec. 2016, [DOI:10.1109/MEPCON.2016.7836870](https://doi.org/10.1109/MEPCON.2016.7836870) , **(Indexed in Scopus)**
13. **M. M. Samy**, and A. Emam, "Computation of Electric Fields Around Parallel HV and EHV Overhead Transmission Lines in Egyptian Power Network," Proceeding of the 17th IEEE International Conference on Environment and Electrical Engineering, Milan, Italy June 6 –9, 2017. [DOI:10.1109/EEEIC.2017.7977403](https://doi.org/10.1109/EEEIC.2017.7977403) **(Indexed in Scopus)**
14. **M. M. Samy**, and S. Barakat, "Optimal Cost Analysis Study of Stand-Alone Renewable Energy Systems for Scrubland Area in Egypt," Proceeding of the 17th IEEE International Conference on Environment and Electrical Engineering, Milan, Italy June 6 –9, 2017. **(Indexed in Scopus)**
15. **M. M. Samy**, R. M. Radwan, and S. Akef, "Calculation of Electric Fields underneath and on Ultra High Voltage Transmission Lines," Proceeding of the 17th IEEE International Conference on Environment and Electrical Engineering, Milan, Italy June 6 –9, 2017. [DOI:10.1109/EEEIC.2017.7977420](https://doi.org/10.1109/EEEIC.2017.7977420) **(Indexed in Scopus)**

16. **M. M. Samy**, and A. Emam, "Induced Voltage on Pipeline near-by Hybrid Transmission Lines," Innovative Systems Design and Engineering Journal, ISSN 2222 – 1727 (Paper) ISSN 2222-2871 (Online), Vol. 2, No. 4, pp. 218 – 232, 2017.
17. **M. M. Samy**, Ahdab Elmorshdy, and A. Emam, "Calculation of Electric, Magnetic Fields and Ion currents underneath HVDC Overhead Transmission Lines interconnecting Egypt and KSA," The 3rd Workshop between Egyptian Electricity Company and Saudi Electricity Company, Riyadh, KSA, May 1 –2, 2017.
18. **M. M. Samy**, "Computation of Electromagnetic Fields Around HVDC Transmission Line Tying Egypt and KSA," Proceeding of the 19th International Middle East Power System Conference (Mepcon'19), Menoufia University, Egypt, 19 – 21 – Dec. 2017.
[DOI:10.1109/MEPCON.2017.8301345](https://doi.org/10.1109/MEPCON.2017.8301345) (Indexed in Scopus)
19. **M. M. Samy**, "Techno-Economic Analysis of Hybrid Renewable Energy Systems for Electrification of Rustic Area in Egypt," Innovative Systems Design and Engineering Journal, ISSN 2222 – 1727 (Paper) ISSN 2222-2871 (Online), Vol. 8, No. 1, pp. 42 – 54, 2017.
20. S. Barakat, **M. M. Samy**, Magdy B. Eteiba and Wael Ismael Whaba, "Optimization of an Off-Grid PV/Biomass Hybrid System with Different Battery Technologies," Sustainable Cities and Society Journal, Volume 40, July 2018, Pages 713-727, <https://doi.org/10.1016/j.scs.2018.01.012>. 2018.
(IF=7.8, Q1 Web of Science)
21. **M. M. Samy**, Ahdab Elmorshdy, and A. Emam, "Grounding of HVDC Converter Station for the Kingdom of Saudi Arabia – Egyptian Electrical Interconnection," The 4th Workshop between Egyptian Electricity Company and Saudi Electricity Company, Cairo, Egypt, April 18 –19, 2018.
22. **M. M. Samy**, S. Barakat, H. H. Sarhan and S. A. Al-Ghamdi, "A Hybrid PV-Biomass Generation Based Micro-Grid for the Irrigation System of a Major Land Reclamation Project in Kingdom of Saudi Arabia (KSA) - Case Study of Albaha Area", Proceeding of the 18th IEEE International Conference on Environment and Electrical Engineering, Palermo, Italy June 12 –15, 2018.
[DOI:10.1109/EEEIC.2018.8494543](https://doi.org/10.1109/EEEIC.2018.8494543) (Indexed in Scopus)
23. Nahar Alshammar, **M. M. Samy**, Johnson Asumadu, "Optimal Economic Analysis Study for Renewable Energy Systems to Electrify Remote Region in Kingdom of Saudi Arabia," Proceeding of the 20th International Middle East Power System Conference (Mepcon'20), Cairo University, Egypt, 18 – 20 – Dec. 2018. [DOI:10.1109/MEPCON.2018.8635287](https://doi.org/10.1109/MEPCON.2018.8635287) (Indexed in Scopus)
24. **M. M. Samy**, S. Barakat and H. S. Ramadan, "Techno-Economic Analysis for Rustic Electrification in Egypt Using Multi-Source Renewable Energy Based on PV/ Wind/ FC," Proceeding of the 6th International Conference on Emerging and Renewable Energy (ICEREGA'18), Sousse, Tunisia, 28 – 30 – Oct. 2018.
25. **M. M. Samy**, S. Barakat and H. S. Ramadan, "A Flower Pollination Optimization Algorithm for an Off-Grid PV-Fuel Cell Hybrid Renewable System," International Journal of Hydrogen Energy (IJHE), Volume 44, Issue 4, 22 January 2019, Pages 2141-2152.
<https://doi.org/10.1016/j.ijhydene.2018.05.127> (IF= 3.8, Q1 Web of Science)

26. **M. M. Samy**, and Khalid A. Alkhuzai, "Optimization and Sizing of an Islanded Microgrid Based on Photovoltaic/Fuel Cell (PV/FC) in KSA" Yanbu Journal of Engineering & Science, Vol. No.1, 2019.
[DOI:10.53370/001c.23728](https://doi.org/10.53370/001c.23728)
27. **M. M. Samy**, Ahdab Elmorshdy, and A. Emam, " Electromagnetic Field Profiles Neighboring and Among Hybrid Transmission Lines in Egypt Electric Utility" Proceeding of CIGRE Egypt conference, Cairo, Egypt, March 6 –8, 2019.
28. **M. M. Samy**, Ahdab Elmorshdy, and A. Emam, " Electromagnetic Field Profiles Neighboring and Between Hybrid Transmission Lines in Egypt Electric Utility and interconnecting Egypt and KSA," The 5th Workshop between Egyptian Electricity Company and Saudi Electricity Company, Riyadh, KSA, 23-25 April 2019.
29. **M. M. Samy**, and S. Barakat, "Hybrid Invasive Weed Optimization - Particle Swarm Optimization Algorithm for Biomass/PV Micro-grid Power System," Proceeding of the 21st International Middle East Power Systems Conference MEPCON 2019, Tanta University, Cairo, Egypt 17-19 Dec. 2019.
[DOI:10.1109/MEPCON47431.2019.9008156](https://doi.org/10.1109/MEPCON47431.2019.9008156). (Indexed in Scopus)
30. **M. M. Samy**, Ahdab Elmorshdy, and A. Emam, "Field Profiles Underneath and Between Proposed Hybrid Power Lines in Egyptian Grid," Proceeding of the 21st International Middle East Power Systems Conference MEPCON 2019, Tanta University, Cairo, Egypt 17-19 Dec. 2019.
[DOI:10.1109/MEPCON47431.2019.9008197](https://doi.org/10.1109/MEPCON47431.2019.9008197). (Indexed in Scopus)
31. S. Akef, A. Emam, Ahdab Elmorshdy, and **M. M. Samy**, "Safe Grounding Grid Design for Converter Station" Proceeding of the 21st International Middle East Power Systems Conference MEPCON 2019, Tanta University, Cairo, Egypt 17-19 Dec. 2019. [DOI:10.1109/MEPCON47431.2019.9007970](https://doi.org/10.1109/MEPCON47431.2019.9007970) (Indexed in Scopus)
32. **M. M. Samy**, and S. Barakat, "A Hybrid Firefly/Harmony Search Optimization for PV/Wind Turbine /Fuel Cell/Grid Integrated Energy System Considering Unreliable Electric Utility," Proceeding of the 4th International Conference on Alternative Fuels, Energy and Environment (ICAFEE 2019) Feng Chia University, Taiwan, 18-21 Oct. 2019.
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 98. **Mohamed Mahmoud Samy**, Ahdab Elmorshdy, and Shima Barakat, " An Optimized Control Strategy for Residential DERs to Enhance Grid Resilience and Provide Ancillary Services in Low Voltage Distribution Networks, " Accepted for publication in CIGRE Paris Session 2026.
 99. **Mohamed Mahmoud Samy**, Ahdab Elmorshdy, and Shima Barakat, " A Framework for Co-optimizing Cost and Resilience in Stand-Alone Power Systems for Green Hydrogen Production, " Accepted for publication in CIGRE Paris Session 2026.
 100. Mohamed Abdelhakem Ahmed, Saber M. Saleh, **Mohamed Mahmoud Samy**, "Optimal Design and Techno-Economic Analysis of Hybrid PV–Wind System for Auxiliary Loads in a Combined Cycle Power Plant," Proceeding of the IEEE 2026 ICEENG International Conference for

Innovations in Power and Control Systems (IPCS), 11-14 May 2026, Military Technical College (MTC), Cairo, Egypt, Egypt, DOI:[10.1109/IPCS69631.2026.11604404](https://doi.org/10.1109/IPCS69631.2026.11604404). (Indexed in Scopus)

101. Doaa Mahmoud, Mohamed A. Ghalib, Abdelsalam Shaaban, **Mohamed Mahmoud Samy**, "Techno-Economic Optimization of an Off-Grid PV–Wind Hybrid Energy System for a Hotel in Hurghada, Egypt Using HOMER Pro," Proceeding of the IEEE 2026 ICEENG International Conference for Innovations in Power and Control Systems (IPCS), 11-14 May 2026, Military Technical College (MTC), Cairo, Egypt, Egypt. DOI:[10.1109/IPCS69631.2026.11604334](https://doi.org/10.1109/IPCS69631.2026.11604334). (Indexed in Scopus).
102. Mohamed Gad El-Moula Abd-Rabou, Saber M. Saleh, **Mohamed Mahmoud Samy**, "Digital Twins in renewable energy: An Overview," Proceeding of the IEEE 2026 ICEENG International Conference for Innovations in Power and Control Systems (IPCS), 11-14 May 2026, Military Technical College (MTC), Cairo, Egypt, Egypt. DOI:[10.1109/IPCS69631.2026.11604236](https://doi.org/10.1109/IPCS69631.2026.11604236). (Indexed in Scopus).
103. Michael A Eissa, and Mokhtar Said, and **Mohamed Mahmoud Samy**, "Techno-Economic Analysis and Resilience Enhancement of a Hospital Microgrid Under Grid Outage" Scientific Reports Journal, **16**, Article number: 18358 (2026) (IF= **3.9 Q1 Web of Science**, CiteScore of **6.9, Q1 Scopus**). <https://doi.org/10.1038/s41598-026-56638-8>
104. Lobna Mahmoud, Mohamed Saber, Ameer Yassen, Shimaa Barakat, and **Mohamed Mahmoud Samy**, "Design and Implantation of Small-Scale Hybrid Electric Vehicle Based on Fuel Cell and PV System" Accepted for publications in Global Energy Interconnection Journal (IF= **3.9 Q2 Web of Science**, CiteScore of **7.0, Q1 Scopus**).

Eighth: Teaching Courses:

1. Electric Circuit Analysis.
2. Electrical and Electronic Measurements.
3. Solid State Physics (Semiconductors).
4. Digital Logic Design.
5. Basic and Micro-Electronics.
6. Computer Programming.
7. Electromagnetic Fields
8. High Voltage Direct Current Transmission.
9. High Voltage Engineering.
10. High Voltage Substations
11. Electrical Machines.
12. Protection and Switchgear.
13. Power Generations.
14. Electrical Power Cables.
15. Computer Applications in Power System.
16. Power System Dynamics
17. Automatic Control.
18. Digital Control.
19. Process Control.
20. Power Electronics and Motor Drives.
21. Renewable Energy.
22. Applications of High Voltage Engineering.
23. Energy Storage Technologies
24. Wind Energy
25. Solar Energy
26. Ocean Energy
27. Biomass and Waste to Energy (WTE)
28. Electric Power System Analysis
29. Transmission and Distribution of Electric Energy
30. Intelligent Control Systems.

Ninth: Training Courses:

1. Power Generation Systems
2. Electrical Motor Control, Operation, Protection, Testing, and Maintenance
3. Advanced Electrical Protection Relays and Systems
4. Plant Electrical Equipment; Designing and Sizing.
5. Electrical Installation in Hazardous Areas
6. Power Cables; Selection, Testing, and Fault Locations
7. Electric Earthing & Lightning Electrical Safety System
8. Electrical Power Transformers; Testing Maintenance and Protection
9. Uninterruptible Power Supply (UPS) and Batteries Maintenance
10. Motor control and Protection via Programmable Logic Controller (PLC)

11. Variable Speed Drives (VSD) for Industrial Control systems.
12. Fundamentals of Distribution Systems
13. Powerhouse Protection and Control
14. Overhead Transmission Lines Problems and Maintenance
15. Power Electronics Applications in Power System
16. Switchgear & Distribution
17. Applying Standard Electrical Documentations and Drawings
18. Modern Power Management System
19. Distribution Network Design and Planning
20. Fault Analysis in Electrical Power Networks
21. Workshop Maintenance and Electric Machines Operations.
22. Protection of Power Systems.
23. Principles of Electric Power Systems.
24. Short Circuit Current Calculating Programs.
25. Cyber Security of Power System.
26. Introduction in Nano Technology and its Applications in Power Systems.
27. Introduction to Power Generation using Renewable Recourses.
28. Power Generation Using PV Cells
29. Power Generation Using Wind Energy.
30. Energy Storage devices and methods.
31. Power Generation Using Biomass and Hydrogen Energy.
32. Risk Assessment of Power System
33. PLC and SCADA system control.

Tenth: References

1. Prof. Dr. Mazen Abdel-Salam

Fellow of IEEE (USA), Fellow of IEE (UK), Fellow of IOP (UK), Fellow of AVH (Germany), Fellow of JSPS (Japan).

Electrical Engineering Department, Assiut University, Assiut 71516, Egypt.

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2. Prof. Dr. Ahdab Al-Morshdy

Electric Power and Machine Department, Faculty of Engineering, Cairo University, Giza, Egypt.

Chairman of the Egyptian CIGRE National Committee Ministry of Electricity and Renewable Energy, Egypt

Email: ahdabmk@yahoo.com

Mobile: +201223422553.

Eleventh: Summary of CV

M. M. Samy was born in Al-Sharkia, Egypt in 1972. He received the B.Sc. in electrical engineering from the Faculty of Engineering and Technology, Banha University, Banha, Egypt, M.S. degrees in electrical power and machines from Zagazig University, Zagazig, Egypt, and Ph.D. degree from Cairo University, Giza, Egypt in 1995, 2007 and 2011, respectively. From Jan. 2012 to July 2018, he was an Assistant Prof. at the electrical engineering department, Beni-Suef University. Prof. Samy was on leave as a visiting Prof. at the Faculty of Engineering, Albaha University, Albaha, Kingdom of Saudi Arabia (KSA) since 2016 to 2021. **M. M. Samy** is currently a full Professor and a chief of the electrical engineering department at the faculty of engineering, Beni-Suef University, Beni-Suef, Egypt. Prof. **Samy** was selected as a technical program committee (TPC) member for the third international conference on Energy Engineering and Environmental Protection (EEEP 2018), the third international conference on Energy and Power Engineering (EPE 2020) Shanghai, China and at the Second International Conference on Energy, Power, and Environmental System Engineering ICEPESE2021. Also, he is a consultant and certified instructor for Oil and Gas Skills Petroleum Company in Egypt. Prof. Mohamed Samy served as a Co-Editor-in-Chief of the Journal of Engineering Science and Sustainable Industrial Technology, Faculty of Engineering, Beni-Suef University, Beni-Suef, Egypt. Also, he is an Associate -Editor-in-Chief of the Journal of Beni-Suef University Journal of Basic and Applied Sciences, Beni-Suef University, Beni-Suef, Egypt. **Recently Prof. Mohamed Mahmoud Samy was to be in the "2022, 2023, 2024 and 2025 World Ranking of Top 2% Scientists/Researchers by Stanford University (California, USA) ", announced on October 10, 2022, October 4, 2023, September 17, 2024, and September 20, 2025, based on the updated science-wide Scopus databases of standardized citation indicators.** His research activities include digital calculation of electric and magnetic fields, mitigation of electromagnetic fields underneath high, extra, and ultra-high voltage transmission lines, High Phase Order Transmission System, High Voltage Direct Current Transmission (HVDC). He has continued his studies in the areas of high voltage engineering, its applications, and grounding. Also, his research includes the area of renewable energy such as photovoltaic cells (PVs), Wind, Biomass, Hydrogen Energy, Electric Vehicles, energy storage devices and application of Artificial Intelligence, Machine and Deep Learning in Power and Renewable Energy Systems.

Prof. Dr. Mohamed Samy

2026



السيرة الذاتية للأستاذ الدكتور: محمد أحمد ابراهيم محمد

1. Personal data

Name (Arabic)	محمد أحمد إبراهيم محمد
Name (English)	Mohamed Ahmed Ebrahim Mohamed
Department	Electrical Engineering
College	Engineering
Academic degree	Ph. D
Office Address	108 Shoubra Street – Faculty of Engineering at Shoubra – Cairo - Egypt
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Recent Photo (passport format)	

2. Education

Institution	Degree obtained	Year
Faculty of Engineering at Shoubra - Benha University – Cairo - Egypt	Ph. D of Electrical Engineering	2013
Faculty of Engineering at Shoubra - Benha University – Cairo - Egypt	Master of Electrical Engineering	2009
Faculty of Engineering at Shoubra - Zagazig University (Benha Branch) – Cairo - Egypt	Bachelor of Electrical Power and Machines Engineering	2004

General specialty	Electrical Power Engineering (Electrical Power Systems)
Specific specialty	New and Renewable Energy

Language skills

Language	Reading	Speaking	Writing	Certificate
Arabic	Excellent	Excellent	Excellent	Native Language
English	Excellent	Excellent	Excellent	TOEFL IBT
French	Good	Good	Good	4 level from IFE
German	Fair	Fair	Fair	

3. Membership of professional bodies

- 1) IEEE Senior Member since 2020.
- 2) Certified consultant for new and renewable energy systems since 2019, Cairo, Egypt.
- 3) A member of hybrid power systems, electric actuators, fuel cells systems French research team (SHARPAC) since 2016.
- 4) A member of International Conference on Renewable Energy: Generation and Applications (ICREGA'2016) organization committee since 2015.
- 5) A member of IEC national reviewing committee since 2013.
- 6) A member of Egyptian code reviewing committee since 2013.
- 7) A member of IEEE Transactions on Fuzzy Systems reviewers' board since 2013.
- 8) A member of American Journal of Engineering and Applied Science reviewers' board since 2014.
- 9) A member of International Journal of Electrical Power and Energy Systems reviewers' board since 2015.
- 10) A member of Electrical Engineering Springer reviewers' board since 2016.
- 11) A member of IEEE Transactions on Vehicular Technology reviewers' board since 2016.
- 12) A member of IET Renewable Power Generation reviewers' board since 2016.

- 13) A member of International Journal of Emerging Electric Power Systems reviewers' board since 2016.
- 14) A member of International Journal of Hydrogen Energy reviewers' board since 2016.
- 15) A member of IEEE Conference on Control Technology and Applications reviewers' board since 2017.
- 16) A member of World Society of Sustainable Energy Technologies (WSSET) since 2014.
- 17) A member of Engineering Consulting and Studies Center at Faculty of Engineering at Shoubra – Benha University since 2011.
- 18) A member of Electrical Engineering Technical Teamwork of Benha University since 2007.
- 19) A member of Electrical Engineering Technical Teamwork of Faculty of Engineering at Shoubra – Benha University 2006.
- 20) A member of Egyptian syndicate of engineers since 2004.

4. Distinction, Awards, and Fellowships

- a. **Postdoctoral fellowship** presented by the Embassy of France in Egypt – *Institut Francais d’Egypte* (IFE) and the Science and Technology Development Fund (STDF), Egypt: **2018**
- b. Distinction prize from SRF (Scientific Research Fund – Benha University, Egypt) for international publishing competition of January round 2018: **2018**
- c. Distinction prize from SRF (Scientific Research Fund – Benha University, Egypt) for citation competition of January 2018: **2018**
- d. ASRT (Academy of Scientific Research and Technology, Egypt) graduation project fund to support the final year graduated students (***Three projects***): **2018**

- e. ASRT (Academy of Scientific Research and Technology, Egypt) grant for a workshop entitled “Small Scale Thermal Solar District Units for Mediterranean Communities” SEKEM, Al-Sharqia, Egypt: **2016**
- f. ASRT (Academy of Scientific Research and Technology, Egypt) graduation project fund to support the final year graduated students: **2016**
- g. Honorary session chair of ICEREGA17, International Conference on Emerging and Renewable Energy, Generation and Application, Belfort, France: **February 2016**.
- h. STDF-IRD (Science and Technology Development Fund, Egypt) and (French Institute for Research and Development, France) Joint Short-Term Fellowship: **2016**
- i. The first place “SFE Turbo Team” in hybrid-electric vehicle competition “First Global Hybrid-Electric Challenge in Egypt” sponsored by Global EEE: **2016**
- j. British Council (UK) grant for a workshop entitled “UK-Egypt enhanced research networks in renewable energy to support economic development” Arab Academy of Science & Technology, Alexandria Campus, Alexandria, Egypt: **2015**
- k. British Council (UK) grant for a workshop on “solar and wind energy technologies” Faculty of Engineering – Nottingham University – Nottingham – United Kingdom: **2014**
- l. The second place “Turbo Team” in GESR Wind Turbine competition “First Wind Turbine Challenge in Egypt” sponsored by GESR Association: **2014**
- m. The second place in line follower competition sponsored by Benha University: **2014**
- n. The seventh place in IRC Egypt competition “International Robotics Challenge in Egypt”: **2014**
- o. The best robot design award in Robocon Egypt competition Organized by Helwan University: **2014**
- p. **Ph.D.** Degree Awarded from Faculty of Engineering at Shoubra - Benha University – Cairo – Egypt: **March 2013** “with honor degree”

- q. French Council grant for a workshop on “renewable interconnection to the grid by virtual power plants” Faculty of Engineering – Zagazig University – Zagazig – Egypt: **2012**
- r. French Council grant for a workshop on “smart grid concept, operation, and control” Faculty of Engineering – PARIS-SUD 11 UNIVERSITE – Paris – France: **2012**
- s. **M.Sc.** Degree Awarded from Faculty of Engineering at Shoubra - Benha University – Cairo – Egypt: **February 2009** “with honor degree”.
- t. **ISO 9001:2008** Certificate Awarded from Arab Company for Management Systems Development: **September 2009**
- u. **OHSAS 18001:2007** Certificate Awarded from Arab Company for Management Systems Development: **October 2009**
- v. **ISO 14001:2004** Certificate Awarded from Arab Company for Management Systems Development: **October 2009**
- w. **B.Sc.** Degree Awarded from Faculty of Engineering at Shoubra - Zagazig University (Benha Branch) – Cairo – Egypt: **May 2004** “Second place with honor degree”.

Areas of research

- Effort is devoted also to develop new cutting-edge technologies in fuel cell and energy storage systems and their applications in Electric Vehicles and fast charging stations.
- Research focus is to accelerate the applications of off grid as well as grid connected PV systems.
- Research effort is devoted to develop a more comprehensive approach to the modeling of power systems with renewable energy resources.
- Effort is devoted also to develop more comprehensive analysis approaches for studying renewable energy based interconnected power systems.

- Analysis and control of renewable energy-based power systems and the relevant artificial intelligent based optimization methods applicable to the enhancement of the effectiveness of their controllers.
- Smart grid concept, analysis, operation, and control.
- Effort is devoted to develop a more comprehensive approach to the modeling of High Voltage Direct Current (HVDC) transmission systems in the presence of renewable energy resources.
- Application of the recent development in computer and internet facilities to improve teaching Methodologies benefiting from the e-learning tools and the various programs presented by the Higher education enhancement project fund (HEEPF).
- Transforming the actual courses from the conventional hard copy text form into the more elegant and perceptive soft form prescribed by the e-learning management form.

5. Academic

5.1. Teaching

5.1.1. Courses at undergraduate level

Course title	Faculty / year
1) Energy Resources and Renewable Energy	Nahda University in Beni Suef (NUB), Beni Suef, Egypt, 2020
2) Fundamentals of photovoltaic	Nahda University in Beni Suef (NUB), Beni Suef, Egypt, 2020
3) Electric Power	Nahda University in Beni Suef (NUB), Beni Suef, Egypt, 2018
4) Principles of Electrical Engineering	Nahda University in Beni Suef (NUB), Beni Suef, Egypt, 2018

5) Project	Nahda University in Beni Suef (NUB), Beni Suef, Egypt, 2018
6) Project	El Shorouk Academy, El Shorouk, Egypt, 2017
7) Computer-aided Analysis	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2017
8) Electric Drive Systems	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2017
9) Signals and Systems	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2017
10) Programmable Logic Controller	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, 2017
11) Solar Cells Fundamentals	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2017
12) Automatic Control	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2013
13) Transmission and Distribution of Electric Power	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2007
14) Electrical Power Engineering	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2006
15) Electrical Testing	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2006
16) Electromagnetic fields testing	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, 2013 - 2014
17) Engineering Legislations	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, 2013 - 2014
18) Electrical Circuits	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, 2006 - 2009
19) Renewable Energy Systems	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2014

20) Further Electrical Power	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2014
21) Electric Installation Design	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2014
22) Engineering Design	Al-Ameeria Integrated Technical Education Cluster, Cairo, Egypt, since 2013
23) Electrical Power Engineering	Elgazeera High Institute for Engineering and Technology, Cairo, Egypt, 2014-2015
24) Control Systems	Elgazeera High Institute for Engineering and Technology, Cairo, Egypt, 2014-2015
25) Electric Circuits I	Misr International University (MIU), Cairo, Egypt, 2015

5.1.2. Courses at post graduate level

Course title	Faculty / year
1) Electricity Generation from renewable resources	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2015
2) Power System Control	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2013
3) Advanced Studies in Transmission and Distribution of Electric Power	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2013
4) Advanced Studies in Electrical Power Systems Analysis I	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2013
5) Control of Electrical Power Systems	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, since 2013
6) Advanced Studies in Electrical Power Systems Analysis II	Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt, 2013 - 2015

5.2. Ph. D/M.Sc. Supervision

Title	Ph.D./M.Sc.	Year completed / in progress
1) Design of Intelligent Frequency Controllers for Hybrid Micro grids.	Ph.D.	In progress
2) Optimal Energy Management Solutions for Renewable Energy Systems under Uncertainties.	Ph.D.	In progress
3) Enhancing Voltage Stability and Power Quality generated due to Installing High penetration of PV Power Plants on the Utility Grid Using Modern Technique.	Ph.D.	In progress
4) Advanced Control Techniques for Islanded Micro Grid System.	Ph.D.	2021
5) Enhancing the Techno-Economic Operation of the Distribution Networks Considering Renewable Distribution Generation Resources Integration.	Ph.D.	2021
6) Control of Gas Turbine Based on Evolutionary Computational Techniques.	Ph.D.	2020
7) Performance Enhancement of Wide Area Protection Using Fault Identification Scheme.	Ph.D.	2019
8) Design of New Controllers for Improving the Power Quality in WECS.	Ph.D.	2018
9) Transient Stability Enhancement of Hybrid Renewable Energy Power Systems Using AI Techniques.	Ph.D.	2017
10) AI - Based Energy Management for Renewable Energy Interconnected Systems.	Ph.D.	2017
11) Advanced Load Frequency Control Schemes for Interconnected Power Systems.	Ph.D.	2017
12) Improving the Power Quality Using DG Units in Distribution Network Using a new Multi Objective Optimization technique.	Ph.D.	2017

13) Control of Electric Vehicles Charging and its Effect on Low Voltage Distribution Network Stability.	M.Sc.	In progress
14) Rationalization and Management of Electrical Energy in the Distribution Networks Using Integrated Smart Grid System.	M.Sc.	In progress
15) The Optimum Operation of Solar Energy for LED Lighting Systems.	M.Sc.	2021
16) Performance Assessment of Solar Powered Pumping Systems Using MPPT Techniques.	M.Sc.	2020
17) Advanced Control Techniques of Insulated Core Transformer Accelerator for Optimum Irradiation Dose Determination.	M.Sc.	2019
18) Demand Side Management and Stability of Renewable Energy based Hybrid Grid System.	M.Sc.	2019
19) Voltage Stability Enhancement for Electric Distribution Networks.	M.Sc.	2017
20) Analysis and Control of Integrated Distribution Networks Based on Distributed Generation Systems.	M.Sc.	2016
21) Mitigation of Torsional Oscillations in Large Turbine Generator Shaft System Resulting from Reclosing Practices Using AI Techniques.	M.Sc.	2016
22) Advanced Controllers and Energy Management for Wind/Hydro Hybrid System.	M.Sc.	2016
23) Smart Grid Integration of PV/WT Hybrid System (Grid Optimization and Distribution Generation).	M.Sc.	2016
24) Control of Multi Area Power System Based on Different Particle Swarm Optimization Techniques.	M.Sc.	2016
25) PQ for the Grid Supported with Wind Turbines.	M.Sc.	2016
26) Analysis and Control of Over Voltages on Vacuum Circuit Breaker Switched Large Induction Motors Using Wavelet	M.Sc.	2015

Technique.		
27) Modeling and Control of an Inverted Pendulum Based on Evolutionary Computational Techniques.	M.Sc.	2015

5.3. Graduation Projects Supervision

Title	Year completed / in progress
1) Smart City.	2020 - 2022
2) Urban electric vehicle.	2019 - 2022
3) Improving the Egyptian industrial sector using photovoltaic array systems.	2019
4) Robotic Arm.	2019
5) Sustainable Management and Reduction Techniques for Energy in Academic Green Building (SMART EG).	2018
6) Toward First Egyptian Hybrid Vehicle.	2018
7) Smart Micro Grid (Hybrid System).	2018
8) New Approaches for Fire Alarm and Fighting Systems.	2018
9) Advanced Control Methods for Industrial Production Lines.	2018
10) Multi-Purpose Smart Security Systems.	2018
11) Smart Touristic Village.	2017
12) Eco-Smart Village.	2016
13) Photovoltaic Array System Design and Installation for Academic Building.	2015
14) Electrical Distribution for Academic Building Using PV Array Systems.	2015
15) Analysis, Design, and Control of Wind Farm Connected to the National Grid.	2014
16) Management of Integrated Distribution Networks Based on Distributed Generation Systems.	2014
17) Electrical Distribution of a Residential City Using PV Systems.	2014

18) Smart Building for Sustainability Using PV System.	2014
19) Electricity Production Using Biogas from Wastewater Treatment Plant.	2014
20) Electrical Distribution and Control of Academic Buildings.	2014
21) Solar Tower Power Plant.	2013
22) Analysis, Design, and Control of Photovoltaic Systems.	2013
23) Application of Photo Voltaic Cells in Green Houses.	2013
24) Electrical Distribution of An Industrial Factory (Toshiba Factory).	2103
25) Low Voltage Electric Distribution System.	2012
26) Optimal Planning of Low Voltage Distribution System for An Industrial Installation.	2011
27) A New Approach for Long Transmission Line and Distribution System Design.	2010
28) A New Approach for A Long Transmission Line Design Under Economic Considerations.	2009

5.4. Grants for Projects

Funding organization	Project title	Role	Year
Six months Egyptian-French scientific research program (STDF-IFE 2018, Project Number: 31110) between both the Embassy of France in Egypt – <i>Institut Francais d’Egypte</i> (IFE) and the Science and Technology Development Fund (STDF), Egypt	Multipurpose Energy Management Operation Scheme for Hybrid Renewable Energy with Energy Storage Systems (MEMOSHREESS)	Member and the Representative of the Egyptian side	2018
ASRT (Academy of Scientific Research and Technology, Egypt) graduation project fund to support the final year graduated students:	Sustainable management and reduction	Supervisor and the principal Investigator of	2018

2018	techniques for energy in academic green building (SMART EG).	the Faculty of Engineering at Shoubra – Benha University	
ASRT (Academy of Scientific Research and Technology, Egypt) graduation project fund to support the final year graduated students: 2018	Toward First Egyptian Hybrid Vehicle	Supervisor and the principal Investigator of the Faculty of Engineering at Shoubra – Benha University	2018
ASRT (Academy of Scientific Research and Technology, Egypt) graduation project fund to support the final year graduated students: 2018	Smart micro grid (hybrid system)	Supervisor and the principal Investigator of the Faculty of Engineering at Shoubra – Benha University	2018
Two years Egyptian-French scientific research program (PHC IMHOTEP 2017, Project Number: 37950RD) between both the Faculty of Engineering-Zagazig University (ZU) in Egypt and the University of Technology of Belfort Monbeliard (UTBM) in France.	Hydrogen Storage Technology for Emergence Green Solutions of Renewable Energy-Mix Grids	Member of the Egyptian side	2017 - 2019
Two years SRF project fund between both the Faculty of Engineering at Shoubra and Scientific Research Fund at Benha	Energy harvesting from the moving cars at jammed	Co. Investigators	2017

University, Egypt	areas		
ASRT (Academy of Scientific Research and Technology, Egypt) graduation project fund to support the final year graduated students: 2016	Eco Smart Village	Supervisor and the principal Investigator of the Faculty of Engineering at Shoubra – Benha University	2016
Three months Egyptian-French scientific research program (STDF-IRD 2014, Project Number: 16330) between both Science and Technology Development Fund in Egypt and French Institute for Research and Development in France	Optimal Energy Management Solutions for Renewable Energy Based Multi-Source Systems	Member and the Representative of the Egyptian side	2016
Two years Egyptian-French scientific research program (PHC IMHOTEP 2011, Project Number: 25687YJ) between both European Embedded Control Institute (EECI) in France and Faculty of Engineering-Zagazig University in Egypt	Renewable Interconnections to The Grid by Virtual Power Plants	Member and the Representative of the Egyptian side	2010 - 2012
The Egyptian Ministry of Higher Education	Establishment of Internal Quality Assurance and accreditation system at the Faculty of Engineering, Benha University	Member	2009

One-year higher education enhancement project fund (HEEPF 2007, Project Code: B-70-T1 EHVPDS) between both the Egyptian Ministry of Higher Education and Faculty of Engineering at Shoubra – Benha University in Egypt	Enhancing High Voltage Engineering and Power Systems Education Using Software Packages in a LAN (EHVPDS) laboratory Project	Supervisor and Technical Engineer	2007
The Egyptian Ministry of Higher Education	the erection and installation of Benha university network project	Vice Director and Technical Engineer	2006

5.5. Committees

- 1) A member of the international communication unit of the faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 2) A member and vice director of Advanced Training Unit at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 3) A member of scientific equipment committee at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 4) A member and manager of Electronic Learning Unit at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 5) A member and coordinator of Information Technology (IT) committee of the faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 6) A member of Quality Assurance Unit (QAU) at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 7) A member of CIQAP project at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.
- 8) A member of audio, video, and computers maintenance unit at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.

5.6. List of Publications (Authors, Title, Journal/Conference name, pages from to, year, link to full paper)

شارك بنشر عدد من الأبحاث والكتب العلمية في هيئات نشر دولية متخصصة ذات معامل تأثير قوي ومصنفة في عدة مصادر لها ثقل دولي منذ عام 2009 كالتالي:

أ- بحوث منشورة في مجلات دولية متخصصة ذات معامل تأثير قوي ومحكمة ومصنفة في عدة مصادر وتنشر من خلال دار نشر عالمية لها ثقل دولي.

→Journal Papers:

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ب- بحوث منشورة في مؤتمرات دولية متخصصة (منشورة، التحكم على البحث الكامل)

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[C9] S. Soued, **M. A. Ebrahim**, H. S. Ramadan, and M. Becherif, "Optimal Control and Dynamic Performance Enhancement for Wind Plant Based DFIG Using Metaheuristic Techniques," Presented Orally in the 1st International Conference on Alternative Fuels: Future and Challenges, ICAF16, Kayseri, Turkey, 2-4 December 2016. (Recommended for publication in Renewable Energy, ELSEVIER, indexed Web of Science "Thomson reuter" and SCOPUS Impact Factor: 4.825). *Available online:* <http://www.icafe.com/2016/download/abstract-updated.pdf>

[C10] A. Benmouna, M. Becherif, D. Depernet, and **M. A. Ebrahim**, "Energy Management of Hybrid Electric Vehicle Considering the Presence of Fault and Battery State of Charge," Presented Orally in the 1st International Conference on Alternative Fuels: Future and Challenges, ICAF16, Kayseri, Turkey, 2-4 December 2016. (Recommended for publication in Renewable Energy, ELSEVIER, indexed Web of Science "Thomson reuter" and SCOPUS Impact Factor: 4.825). *Available online:* <http://www.icafe.com/2016/download/abstract-updated.pdf>

[C11] A. Benmouna, M. Becherif, D. Depernet, F. Gustin, and **M. A. Ebrahim**, "Energy Management of Hybrid Vehicle of Fuel Cell, Battery and Supercapacity in the Presence of Fault" Presented Orally in the International Symposium on Sustainable Hydrogen, ISSH2, Algiers, Algeria, 5-6 October 2016. (Recommended for publication in International Journal of Hydrogen Energy, IJHE, ELSEVIER, indexed SCOPUS).

[C12] H.A. AbdelHadi, **M.A. Ebrahim**, H.M. Mahmoud, E.M. Saied, M.M. Salama, "Optimal Design of MPPT Controllers for Grid Connected Photovoltaic Array System," Presented Orally in 4th International Conference on Renewable Energy: Generation and Applications, ICREGA 2016, Belfort – France, 08-10 February 2016. (Published in International Journal of Emerging Electric Power Systems, indexed SCOPUS). *Available online:* <http://icrega16.utbm.fr/wp-content/uploads/2015/05/ICREGA-16-Book-of-Abstracts-FINAL1-1.pdf>

[C13] M. Omar, **M. A. Ebrahim**, A. M. Abdel Ghany, and F. Bendary, "Harmony Search Based Fractional Order PID for Load Frequency Control," Presented Orally in 17th International Middle East Power Systems Conference, Mansoura University, Egypt, 15- 17 December 2015. (IEEE Publisher, Web of Science and Scopus indexed)

[C14] **M. A. Ebrahim**, Ali M. Ali, M. A. Moustafa Hassan, "Control of Single Area Power System Based on Evolutionary Computation Techniques," Presented Orally in 17th International Middle East Power Systems Conference, Mansoura University, Egypt, 15- 17 December 2015. (IEEE Publisher, Web of Science and Scopus indexed)

[C15] K. Jagatheesan, B. Anand, N. Dey, and **M. A. Ebrahim**, "Design of Proportional-Integral-Derivative Controller Using Stochastic Particle Swarm Optimization Technique for Single-Area AGC Including SMES and RFB Units," Presented Orally in 2nd International Conference on Computer and Communication Technologies, September 2015. (Published in Satapathy S., Raju K., Mandal J., Bhateja V. (eds) Proceedings of the Second International Conference on Computer and Communication Technologies. Advances in Intelligent Systems and Computing, Vol 380, pp. 299-309, Springer, New Delhi). https://doi.org/10.1007/978-81-322-2523-2_28

[C16] **M. A. Ebrahim**, K. A. M. El-Metwally, W. M. Mansour, and F. M. Bendary, "Fuzzy Stabilizer Design For Renewable Energy Based Distribution Networks," Presented orally in 22nd International Conference and Exhibition on Electricity Distribution, CIRED 2013, Stockholm, Sweden, 10-13 June 2013. (IET Publisher, Web of Science and Scopus indexed). <https://doi.org/10.1049/cp.2013.0585>

[C17] **M. A. Ebrahim**, K. A. M. El-Metwally, W. M. Mansour, and F. M. Bendary, "Stabilization of Renewable Energy Distributed Generation System via Fuzzy Logic Stabilizers," Accepted in Fourth International Joint Journal Conference in Computer, Electronics and Electrical, CEE 2012, USA, 10-13 June 2013. (ACEEE publisher)

[C18] **M. A. Ebrahim**, H. E. Mostafa, S. A. Gawish, and F. M. Bendary "Design of decentralized load frequency based-PID controller using stochastic particle swarm optimization technique," International Conference in Electric Power and Energy Conversion Systems, EPECS'09, Sharjah, United Arab Emirates, 10-12 November 2009. (IEEE Publisher, Web of Science and Scopus indexed).

ج- فصول في كتب منشورة خلال دار نشر عالمية لها ثقل دولي

→Published book chapters:

[BC1] **M. A. Ebrahim**, and R. G. Mohamed, "Modeling, Analysis, and Control of Wide Distributed Large-Scale PV Power Plant Using Recent Optimization Techniques," Handbook of Research on Modeling, Analysis, and Control of Complex Systems, PP. 477-497, IGI Publishers, Inc., USA, 2021. © IGI publishers. Available online: <https://mts.intechopen.com/booksprocess/action/chapter/167032>

[BC2] **M. A. Ebrahim**, and R. G. Mohamed, “Comparative Study and Simulation of Different Maximum Power Point Tracking (MPPT) Techniques using Fractional Control & Grey Wolf Optimizer for Grid Connected PV System with Battery,” InTechOpen, Electric Power Conversion, pp. 1-16, InTechOpen Publishers, Inc., London, United Kingdom, 2019. © InTechOpen publishers. *Available online:* <https://mts.intechopen.com/booksprocess/action/chapter/167032>

[BC3] **M. A. Ebrahim**, Ali. M. Ali, and M. A. Moustafa Hassan, “Frequency and Voltage Control of Multi Area Power System via Novel Particle Swarm Optimization Techniques,” In Brian Walker (ed.), Particle Swarm Optimization (PSO): Advances in Research and Applications, pp. 39-95, Nova Science Publishers, Inc., Hauppauge, NY, 2017. © Nova publishers. *Available online:* https://www.novapublishers.com/catalog/product_info.php?products_id=60855

[BC4] M. E. Mousa, **M. A. Ebrahim**, and M. M. Hassan, “Optimal Fractional Order Proportional—Integral—Differential Controller for Inverted Pendulum with Reduced Order Linear Quadratic Regulator,” In Fractional Order Control and Synchronization of Chaotic Systems, pp. 225-252, Springer International Publishing AG. Part of Springer Nature, Berlin, 2017. © Springer International Publishing AG. https://doi.org/10.1007/978-3-319-50249-6_8

Books published

- 1) Transmission and Distribution of Electric Power
- 2) Electric Testing
- 3) Electrical Power Engineering

5.7. Attended Workshops, Symposiums, and Conferences

Name of Workshops, Symposiums, and Conferences	Year
A- Workshops	
1. Workshop on “Nuclear Power Plants “organized by Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	September 2018
1. Workshop on “Energy Management Strategies for Integrating Renewable Energy Sources in Smart Grids” organized by Helwan University at Faculty of Engineering, Helwan University, Egypt.	December 2017

2. Workshop on “Hydrogen Energy and Fuel Cells” organized by Zagazig University (Egypt) – University of Technology Belfort Montbeliard (France) at Faculty of Engineering, Zagazig University, Egypt.	November 2017
3. Workshop on “Small Scale Thermal Solar District Units for Mediterranean Communities” SEKEM, Al-Sharqia, Egypt.	October 2016
4. Workshop on “UK-Egypt enhanced research networks in renewable energy to support economic development,” 2015 at Arab Academy of Science & Technology, Alexandria Campus, Alexandria, Egypt.	February 2015
5. Workshop on "Green Innovation and Entrepreneurship Program” Faculty of Engineering, Zagazig University, Zagazig, Egypt	April 2014
6. Workshop on "Solar and Wind Energy Systems” Faculty of Engineering, Nottingham University, Nottingham, United Kingdom	March 2014
7. Workshop on "Bio-gas Production from Wastes” Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2013
8. Workshop on "Wastes Recycling” Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2013
9. Workshop on "Wastewater Treatment Plant” Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2012
10. Workshop on "Renewable Interconnection to the Grid by Virtual Power Plants” Faculty of Engineering, Zagazig University, Zagazig, Egypt	2012
11. Workshop on "Smart Grid Concept, Operation, and Control” Faculty of Engineering, PARIS-SUD 11UNIVERSITE, Paris, France	2011
12. Workshop on "Smart Grid Definition and Technology” Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2011
13. Workshop on "Concepts of Quality assurance and accreditation” Benha University, Egypt	2009
14. Workshop on "Standards of accreditation of higher education institution", Benha University, Egypt	2009
15. Workshop on "Procedures of Accreditation by the National Authority of Quality Assurance and Accreditation", Benha University, Egypt	2009

16. Training in Effective Presentation Course, Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2009
17. Workshop on "Digital Libraries" held at Benha University, Egypt	2008
18. Training in Basic Curriculum Design Course, Faculty of Engineering at Shoubra, Benha University, Egypt	2007
19. Training in Occupational Ethics Course, Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2007
20. Training in Using Technology in Teaching, Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2006
21. Training in Preparation and Writing of Scientific Researches, Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2006
22. Training Course for the Production of Educational Materials, Faculty of Education, Benha University, Benha, Egypt	2006
23. Training Course organized by the Benha University and training project of faculty members in the field of modern technology for production of educational materials including the three programs (The use of Educational supply and maintenance, Production of Teaching materials, The design of Educational Attitudes) Benha, Egypt	2006
24. Workshop on "How to Fill the Course Specification Template According to Quality Assurance and Accreditation Guidelines"	2006
B-Symposiums	
25. Symposium on "Environmental Engineering " held at the Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2008
26. Symposium on "Importance of Industrial Engineering" held at the Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt	2007
C-Conferences	
27. The 19 th Middle East Power Systems Conference (MEPCON), Menoufia University, Egypt, December 19-21, 2017	2017
28. The 4 th International Conference on Renewable Energy: Generation and Applications, Belfort, France, February 8 – 10, 2016	2016

29. The 1 st International Conference on Recent trends in energy systems, Cairo, Egypt, October 3-4, 2015	2015
30. The 15 th International Conference on Technologies and Materials for Renewable Energy, Environment and Sustainability, Beirut, Lebanon, April 17–20, 2015	2015

5.8. Positions

5.8.1 Academic Positions

	Date From - to	Organization	Country	Position	Role
1	November 2018-present	Faculty of Engineering at Shoubra - Benha University	Egypt	Associate Professor	Teaching and research
2	May 2013- present	Faculty of Engineering at Shoubra - Benha University	Egypt	Lecturer	Teaching and research
3	December 2009-2013	Faculty of Engineering at Shoubra - Benha University	Egypt	Assistant Lecturer	Teaching and research
	April 2005- 2009	Faculty of Engineering- Zagazig University (Benha Branch)	Egypt	Demonstrator	Teaching and research

5.8.2 Administrative Positions

	Date From - to	Organization	Country	Position	Role
1	2020- present	Digital transformation project in measurement and assessment field - Faculty of Engineering at Shoubra - Benha University.	Egypt	Executive Director	Managing
2	2021- present	Measurement and Assessment Unit - Faculty of Engineering at Shoubra - Benha University.	Egypt	Director	Managing

3	2021-present	Electrical power and machines engineering program - Faculty of Engineering at Shoubra - Benha University.	Egypt	Program Coordinator	Managing
4	2020-2021	Electrical power and machines engineering program - Faculty of Engineering at Shoubra - Benha University.	Egypt	Quality Assurance Coordinator	Managing
5	2013-present	Advanced Training Unit - Faculty of Engineering at Shoubra - Benha University.	Egypt	Director	Managing
6	2013-present	Audio, Video, and Computers Maintenance Unit - Faculty of Engineering at Shoubra - Benha University.	Egypt	Director	Managing
7	2014-present	ICDL Training and Testing Center - Faculty of Engineering at Shoubra - Benha University under ICDL Arabia Supervision.	Egypt	Center Manager	Managing
8	2012-2014	ICDL Training and Testing Center - Faculty of Engineering at Shoubra - Benha University under ICDL Egypt Supervision.	Egypt	Center Manager	Managing
9	2010-2012	ICDL Training and Testing Center - Faculty of Engineering at Shoubra - Benha University under UNISCO Supervision.	Egypt	Center Manager	Managing
10	2009-present	Electronic Learning Unit - Faculty of Engineering at Shoubra - Benha University.	Egypt	Director	Managing
11	2009-present	Electronic Tansik Center for secondary school students - Faculty of Engineering at Shoubra - Benha University.	Egypt	Director	Managing
12	2006-2009	Electronic Learning Unit - Faculty of Engineering at Shoubra - Benha University.	Egypt	Vice Director	Managing

5.9. Activities in faculty/university/community service

Name of Activity service	Year
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1. An organizer of workshop entitles “Nuclear Power Plants “at the Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2018
2. Participating in organizing the 4 th Scientific Excellence Day, Benha, Egypt.	2018
3. Participating in organizing the 4 th international Conference on Renewable Energy: Generation and Applications (ICREGA’2016), Belfort, France.	2016
4. Participating in organizing the 5 th international Conference on Modeling, Identification and Control (ICMIC), Faculty of Engineering, Cairo University, Cairo, Egypt.	2013
5. An organizer of workshop entitles “Bio-gas Production from Wastes “at the Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2013
6. An organizer of workshop entitles “Wastes Recycling “at the Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2013
7. An organizer of workshop entitles “Wastewater Treatment Plant “at the Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2012
8. An organizer of workshop entitles “Renewable Interconnection to the Grid by Virtual Power Plants” Faculty of Engineering, Zagazig University, Zagazig, Egypt.	2012
9. Academic assistant for postgraduate studies students.	2010-present
10. A coordinator for external communication with international schools.	2010-present
11. ICDL certified trainer and tester.	2010-present
12. ICDL testing center manager at the faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2010- present
13. A member of Consulting center of Shoubra faculty of Engineering.	2009-Present
14. A member of Rehabilitation teamwork. College of Engineering at Shoubra-Cairo, Egypt.	2009
15. A member of Faculty council for quality assurance and accreditation.	2008-present
16. A member of equipment committee of the faculty.	2007-present
17. Electronic Tansik supervisor for secondary school students.	2007-present
18. Participation at the awareness campaign for electronic Tansik for secondary school students.	2006

19. A member of the technology club unit at the faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2006- present
20. IT coordinator.	2006
21. Participating in organizing the environmental Conference, Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2006-present
22. Participation of the scientific meeting entitle “IEEE Student Branch” Faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2006-2009
23. Academic and technical Assistance on graduation projects for undergraduate students at faculty of Engineering at Shoubra, Benha University, Cairo, Egypt.	2006-present
24. A member of the Environmental and Civil Consulting Center, Cairo, Egypt.	2006-present

5.10. Consulting Experience

A- Supervising the construction work, operation and maintenance of all electrical works of the Egyptian-German Development Cooperation projects “**Participatory Development Programmed in Urban Areas (PDP)**” under giz supervision such as but not limited to:

- Preparation of the technical specifications, design, shop and as built drawings.
- The nature of the material and apparatus to be put into play.

B- Supervising the construction work, operation and maintenance of all electrical works of the first Egyptian environment friendly cement project “**National Cement Company Environmental Enhancement Project**” such as but not limited to:

- Preparation of the technical specifications of the external lighting as well as the layout of the lighting poles carrying the specified thoroughfares aim to determine the following elements
- The characteristics of the foreseen lighting network i.e. mainly the main luminosity and lighting level they have to ensure.
- The nature of the material and apparatus to be put into play.
- The operating mode of the lighting circuits in particular reflectors and lighting centers and control boards.

- C- Supervising the construction work, operation and maintenance of all electrical works of ALAHLY football club Nasr city such as but not limited to:
- Preparation of the technical specifications of the external lighting for different types of sports (Football – volley ball- basketball....) as well as the layout of the lighting poles carrying the specified thoroughfares aim to determine the following elements
 - The characteristics of the foreseen lighting network i.e. mainly the main luminosity and lighting level they have to ensure.
 - The nature of the material and apparatus to be put into play.
 - The operating mode of the lighting circuits in particular reflectors and lighting centers and control boards.
- D- Supervising the construction work, operation and maintenance of all electrical works of **Ferro-Manganese Furnace *Environmental Enhancement Project in Sinai*** such as but not limited to:
- Control and SCADA systems.
- E- Supervising the construction work, operation and maintenance of all electrical works of various PV powered.
- F- Designing, supervising the construction work, operation and maintenance of all electrical works of the following projects such as but not limited to:
- Lighting system, power works, air condition and ventilation, low voltage and medium voltage distribution networks, light current systems, external lighting, earthing and lightening protection systems, control and SCADA systems...etc.
- a. **NEW CAIRO CITY WATER SUPPLY** (2,000,000 m³/Day).
 - b. **6th of OCTOBER CITY WATER SUPPLY** (1,700,000 m³/Day).
 - c. **Extension of ABU RAWASH WWTP** (800,000 m³/Day).
 - d. **Rehabilitation of BERKA WWTP** (800,000m³/Day).
 - e. **HELWAN WWTP** (550,000 m³/Day).
 - f. **AL MARG PWTP** (600,000 m³/Day).
 - g. **NEW CAIRO WWTP** (250,000 m³/Day).

- h. **10th of Ramadan city WWTP.**
 - i. **Water Transmission to YADAMA Project - KSA.**
 - j. **YANBU WWTP – KSA.**
 - k. **North of JEDDAH WWTP - KSA (250,000 m³/Day).**
 - l. **TAIF – BAHA Water Pipe Line – KSA.**
 - m. **RAS ZAUR – HAFR BATEN Water Pipe Line – KSA.**
 - n. **New Cairo Water Supply (Intake) and Boosters (The Greatest Water Supply Project in Egypt).**
 - o. **The availability and operation of A Wastewater Treatment Plant in New Cairo through Public Private Partnership (the first project in Egypt).**
 - p. **6th of OCTOBER CITY Water Supply (Intake) and Boosters.**
 - q. **New Cairo Main Distribution Elevated Box**
 - r. **Asmarat City.**
 - s. **AstraZeneca-Egypt For Pharmaceutical industries**
 - t. **Ferro-Manganese Furnace in Sina.**
 - u. **Dohler Egypt Factory.**
 - v. **Mansoreya City.**
 - w. **New Cairo Boosters 2, 3, & 4.**
- G- Supervising the construction work, operation and maintenance of all electrical works of “**Masjid Al-Hak Project**” such as but not limited to:
- Lighting system, power works, air condition and ventilation, low voltage distribution networks, light current systems, external lighting, and earthing system...etc.
 - Foreign communications and agreements.
 - Quality assurance and accreditation as a reviewer.
 - Faculty leadership, Development and trainer.
 - International computer driving license (ICDL) certification.

- Writing scientific papers and competitive scientific projects.
- International publication consultant as international peer reviewer for scientific journals.

PROFESSIONAL TECHNIQUES AND AREA OF EXPERTISE

- Artificial Intelligence based techniques and their applications in new and renewable energy-based Power Systems.
- Optimization techniques and their applications.

COMPUTER, IT AND STATISTICAL SKILLS

- Power system operations, analysis and control using advanced software packages (ETAP, ATP, PSAT, PSCAD, PSS/E, Power World Simulator).
- Systems modeling and simulation using MATLAB software package and optimization tools.
- Design of Medium voltage and Low voltage distribution networks using software packages.
- Programmable Logic Controller (PLC) and its applications.
- Engineering drawing using AutoCAD.
- International computer driving license (ICDL) certification (word, Access, excel, PowerPoint, internet, information technology, using the computer and managing files)
- Skillful Statistical analysis using Excel.

ACTIVITIES IN THE QUALITY ASSURANCE AND ACCREDITATION

- A member of the implementation team of Quality assurance and accreditation project at faculty of engineering at Shoubra, Benha University, Cairo, Egypt.
- Workshop on "Concepts of Quality assurance and accreditation", conducted by the National Authority for Quality Assurance and Accreditation Faculty of Engineering at Shoubra, Benha University, 2009, Cairo, Egypt.
- Workshop on "Standards of accreditation of higher education institution", Faculty of Engineering at Shoubra, Benha University, 2009, Cairo, Egypt.
- Workshop on "Procedures of accreditation by the National Authority of quality assurance and accreditation", Faculty of Engineering at Shoubra, Benha University, 2009, Cairo, Egypt.

- Participation in the Health, Safety and Environment Management System Internal Auditing Programs according to ISO 14001:2004 specifications due the period 1/2009 till 1/2010.
- Participation in the Health and Safety Management System according to OHSAS 18001:2007 specification Due the period 1/2009 Till 1/2010 for the Environmental and Civil Consulting Center.
- Participation in the Quality Management System Internal Auditing Programs according to ISO 9001:2008 specifications Due the period 8/2007 Till 10/2010 for the Environmental and Civil Consulting Center.



السيرة الذاتية للأستاذ الدكتور: محمد صابر محمد جاد

CURRICULUM VITAE

Name: **Mohamed Saber Mohamed Gad Nemat Alla**

Address

Home: Masged Wassef, Zifta, Gharabia.

Office: Mechanical Engineering Department, Faculty of Engineering,
Fayoum university, Fayoum, Egypt. P.O.B. 63514.

Telephone

Home: 0405633575, **Mobile:** 0122950756.

Nationality: Egyptian

E-Mail: mgad27@yahoo.com

: msm19@fayoum.edu.eg

Marital Status: Married

Qualifications

Professor in Mechanical Engineering (Power Mechanical), 2026

Associate Professor in Mechanical Engineering (Power Mechanical), 2020

- **Ph.D. in Mechanical Engineering (Power Mechanical), 2013.**
Mechanical Engineering Department, Faculty of Engineering, AL-Azhar University
Thesis Title:-
"Performance of Diesel Engines Burning Alternative Fuels"
- **M.Sc. In Mechanical Engineering (Power Mechanical), 2008.**
Mechanical Engineering Department, Faculty of Engineering, AL-Azhar University
Thesis Title:-
"Investigations on The combustion of Gaseous Fuels"
- **B. Sc. In Power Mechanical Engineering, 1999.**
Power Mechanical Engineering Department, Faculty of Engineering, Zagazig University
Grade: Very Good with honor.
Project Grade: Excellent.
Project Title: "Effect of Fuel Additives on SO₂ Emission".

Employment

Head of mechanical Engineering Department, Faculty of Engineering, Fayoum university: 1/9/2024 till now.

Associate Professor: - 2020 till now

Mechanical Engineering Dept., Faculty of Engineering, Fayoum university

Assistant Lecturer: - 2017-2020.

Mechanical Engineering Dept., Faculty of Engineering, Fayoum university.

Researcher: - 2013-2017.

Mechanical Engineering Dept., National Research Centre (NRC).

Assistant Researcher: - 2008 -2013.



Mechanical Engineering Dept., National Research Centre (NRC).

Research Assistant: - 2001 – 2008.

Mechanical Engineering Dept., National Research Centre (NRC).

Teaching Experience

1. **Maintenance Workshops course, 2002 Up to now**
Third year Mechanical Engineering (Power and Manufacturing), Faculty of Engineering, Banha University
2. **Internal Combustion Engines course, 2002 Up to now.**
Fifth year Power Mechanical Engineering, Faculty of Engineering, Banha University
3. **Mechanical Drawing course, 2006-2010.**
Preparatory year, Theba High Institute for Engineering-EL Maadi-Cairo
4. **Descriptive Geometry course, 2006-2010.**
Preparatory year, Theba High Institute for Engineering-El Maadi-Cairo
5. **Fluid Mechanics and Heat Transfer Course (ME 213A), 2015/2016.**
Third year, Mechatronics Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
6. **Mechanical Thermo-Fluid Lab Course (ME 415, 415I), 2015/2016, 2016/2017, 2017/2018, summer 2016.**
Third year, Mechanical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
7. **Graduation Project (ME 599A, ME 599B), (Supervision), 2015/2016, 2016/2017, 2017/2018.**
Fourth year, Mechanical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
8. **Graduation Project (Supervision), 2015/2016.**
Fourth year, Mechanical Engineering Department, Institute of Aviation Engineering and Technology (IAET), Giza, Egypt.
9. **Graduation Project (Supervision, Reviewing), 2016/2017, 2017/2018.**
Fourth year, Mechanical Engineering Department, Faculty of Engineering, Banha University, Egypt
10. **Graduation Project (Reviewing), (Regulations, Handling and Impact of Biojet fuel in Aviation), 2017.**
Fourth year, Aeronautical Engineering Department, Institute of Aviation Engineering and Technology (IAET), Egypt
11. **Biofuels Course (ME 533), 2015/2016, 2016/2017, 2017/2018, Summer 2016.**
Third year, Mechanical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
12. **Combustion Course (ME 571), 2014/2015, 2015/2016, 2016/2017, 2017/2018.**
Third year, Mechanical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
13. **Combustion Technology Course, 2016/2017.**
Fourth year, Mechanical Engineering Department, Faculty of Engineering, Banha University, Egypt

14. **Internal Combustion Engines Course, 2017.**
Third year, Mechanical Engineering Department, Faculty of Engineering, Banha University, Egypt
15. **Mechanical Engineering Applications Course, 2016/2017.**
First year, Mechanical Engineering Department, Faculty of Engineering, Banha University, Egypt
16. **Mechanical Maintenance Systems Course, 2017.**
Second year, Mechanical Engineering Department, Faculty of Engineering, Banha University, Egypt
17. **Fluid Mechanics Course (ME 312B), 2016/2017.**
Third year, Electrical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
18. **Energy Conversion Course (ME 534), 2016/2017.**
Fourth year, Mechatronics Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
19. **Solar Energy and Wind Energy, 2017/2018.**
Fourth year, Mechanical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
20. **Internal Combustion Engines, 2017/2018**
Fourth year, Aeronautical Engineering Department, Institute of Aviation Engineering and Technology (IAET), Egypt
21. **Energy conversion, Thermo-fluid lab and Thermo-fluid, 2019/2020.**
Fourth year, Mechanical Engineering Department, Faculty of Engineering, Misr University for Science and Technology, Sixth of October, Giza, Egypt.
22. **Combustion Theory, Internal combustion Engines, Oils and fuels, Energy Efficiency and Environmental, Presentations and Communications Skills, Measurements and Instruments, Fundamentals of Metrology, Mechanical and Electrical Applications, Technical Writing from 2017 till now**
Mechanical and Mechatronics Engineering, Faculty of Engineering, Fayoum University.
23. **Internal Combustion Engines and Renewable Energy 2021**
Mechanical Engineering department, Future Academy for Engineering and Technology, Mansoura
24. **Thermodynamics, Fluid mechanics and Heat transfer, Nahda university 2021/2022**
25. **Hydraulic, pneumatic and filtration systems, Advanced fluid and power systems, Maintenance and Fundamentals of piping and instrumentation drawing, Integrated Education Cluster, Fayoum 2020/2021.**
26. **Thermodynamics I, II, Fluid Mechanics, Aerodynamics, Biomass and waste conversion technology, Air Conditioning in Buildings and Heat transfer, Mechatronics, Electrical and Renewable Engineering, Faculty of Engineering, Nahda University, 2022-2023, 2023-2024.**
- 21. Combustion Engineering, Measurements and Tests, from 2022 till now**

Post graduate studies (Diploma, Master Degrees), Mechanical Engineering,
Faculty of Engineering, Fayoum University.
Fire fighting courses.

Research Interests

- Alternative Fuels for Spark ignition Engines.
- Alternative Fuels for Compression Ignition Engines.
- Production of Biodiesel derived from Vegetable and Waste Oils.
- Production of pyrolysis oil derived from waste plastic and tires.
- Application of nano additives (CNT, Al_2O_3 , TiO_2 , CeO_2 , graphene, graphene oxide) in engines.
- Production of green hydrogen and HHO.
- Combustion in burners using oil and gaseous fuels.
- Simulation of Combustion processes in Diesel and Petrol Engines.
- Measurements of Performance parameters, Exhaust Emissions and combustion of Petrol and diesel Engines.



السيرة الذاتية للاستاذ المساعد: محمد مختار ابراهيم أحمد

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Date of Birth : 19/12/1988.

Nationality : Egyptian.

Marital status: Married

Education and Qualifications

- PhD - Electrical Engineering – (2014 – 2018) Ain-Shams University, Cairo, Egypt (Preparation courses GPA 3.95)
Research Subject: [Control and operation of a DC microgrid.](#)
- M.Sc. Degree - Electrical Engineering – (2011–2014) Ain-Shams University, Cairo, Egypt.
Research Subject: [A Direct Drive Based Wave Energy Conversion System.](#)
- B.Sc. Degree - Electrical Engineering – (2005–2010) Ain-Shams University, Cairo, Egypt
Graduation Project: [Electrical distribution in industrial building.](#)
This project aims to make a complete electrical design of a Gas-Oil Separation Plant beginning initially from estimation of all loads , making appropriate design for each load ,and finally to the complete design of the buildings.
- Special Achievements:
B.Sc. Grade: Distinction, Rank: 1, Percentage: 94.4%
Cumulative Grade: Distinction with Honor, Rank: 1, Percentage: 92.945%

Work Experience:

- **Faculty of Engineering – Ain Shams University, Egypt (September 2010 – Present)**
Assistant Professor (September 2018- Present)
Teaching Assistant (September 2010 – 2018)
Job Responsibilities: - Researches & Teaching in the electrical engineering field
 - Participating in the preparation of quality requirements
 - Participating in the ASU consultancy office activities
 - **Post-Doctoral Research Assistant in the College of Engineering at the American University of Sharjah, UAE (February 2020 – December 2020)**
-

Honors and awards:

- **Best Teacher assistant in the Power and Electrical machines department, Faculty of Engineering for the academic year 2012/2013.**
 - **Best PhD thesis in the Faculty of Engineering , Ain shams university for the academic year 2018.**
-

Publications:

- **Journals**

- [1] Mohamed Mokhtar, Mostafa I. Marei, and Mahmoud A. Attia, "Hybrid SCA and adaptive controller to enhance the performance of grid-connected PV system, “ *Ain Shams Engineering Journal*, 2021,ISSN 2090-4479.
- [2] Elmeligy, Mohamed M., Mostafa F. Shaaban, Ahmed Azab, Maher A. Azzouz, and Mohamed Mokhtar, "A Mobile Energy Storage Unit Serving Multiple EV Charging Stations," *Energies* 2021, no. 10: 2969. <https://doi.org/10.3390/en14102969>
- [3] Walid Hatahet, Mostafa I. Marei, and Mohamed Mokhtar, “Adaptive controllers for grid-connected DC microgrids,” *International Journal of Electrical Power & Energy Systems*, Volume 130, 2021.
- [4] A. Ragab, M. I. Marei, M. Mokhtar, and A. Abdelsattar, “Design and performance evaluation of a PV interface system based on inductive power transfer,” *International Journal of Power Electronics and Drive Systems (IJPEDS)*, vol. 12, no. 1, p. 364, Mar. 2021.
- [5] Mohamed Mokhtar, Loai S. Nasrat, and Mahmoud A. Attia, "Mathematical modeling of polymer dielectric strength considering filling concentration, " *International Journal of Emerging Electric Power Systems*, vol. , no. , 2021, pp. 20210111. <https://doi.org/10.1515/ijeeps-2021-0111>
- [6] G.K. Zaher, M.F. Shaaban, Mohamed Mokhtar, and H.H. Zeineldin, “Optimal operation of battery exchange stations for electric vehicles,” *Electric Power Systems Research*, Volume 192, 2021.
- [7] Shaaban MF, Alarif A, Mokhtar M, Tariq U, Osman AH, Al-Ali AR., “A New Data-Based Dust Estimation Unit for PV Panels,” *Energies*. 2020; 13(14):3601.
- [8] M. Mokhtar, M. I. Marei and A. A. El-Sattar, "An Adaptive Droop Control Scheme for DC Microgrids Integrating Sliding Mode Voltage and Current Controlled Boost Converters," *IEEE Transactions on Smart Grid*, vol. 10, no. 2, pp. 1685-1693, March 2019.
- [9] M. Mokhtar, M. I. Marei, and A. A. El-Sattar, “Improved Current Sharing Techniques for DC Microgrids,” *Electric Power Components and Systems*, Vol. 46, No. 7, 2018, pp. 757-767.
- [10] Mostafa I. Marei, Mohamed Mokhtar, Ahmed A. EL-Sattar, “MPPT Strategy Based On Speed Control for AWS-Based Wave Energy Conversion System”, *Renewable Energy an International Journal*, Elsevier, vol. 83, 2015.

- **Conferences**

- [11] A. Shalaby, M. F. Shaaban, M. Mokhtar, H. H. Zeineldin and E. F. El-Saadany, "Optimal Day-ahead Operation for a PV-based Battery Swapping Station for Electric Vehicles," *2021 6th International Symposium on Environment-Friendly Energies and Applications (EFEA)*, 2021, pp. 1-8.
- [12] Z. H. Alnahhal, M. F. Shaaban, M. Hamouda and M. Mokhtar, "Optimal Operation of Power System Integrated with Reverse Osmosis Water Desalination," *2021 6th International Symposium on Environment-Friendly Energies and Applications (EFEA)*, 2021, pp. 1-5.
- [13] S. Mohamed, M. Mokhtar and M. I. Marei, "A Control Strategy for Hybrid Islanded Microgrid," *2019 21st International Middle East Power Systems Conference (MEPCON)*, 2019, pp. 301-306.
- [14] W. Hatahet, M. Mokhtar and M. I. Marei, "Performance Enhancing of Grid-Connected DC Microgrid," *2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE)*, 2019, pp. 361-366.
- [15] M. Mokhtar, M. I. Marei and A. A. El-Sattar, "A control scheme for islanded and grid-connected DC microgrids," *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, 2017, pp. 176-180.
- [16] Mostafa I. Marei, Mohamed Mokhtar, Ahmed A. EL-Sattar, "A Speed-Sensorless Optimal Control Approach for LPMSG Based WECS ", *the Sixteenth International Middle East Power Systems Conference*, Ain Shams University, Cairo, Egypt, December 23-25, 2014 (MEPCON'14).

- Books

- The author of book 'The Speed-Sensorless Control For Linear Generator Based WECS', LAP LAMBERT Academic Publishing, 2018.

- Teaching
Courses taught

- Electromagnetic fields.
- Electrical Machines.
- Power Electronics.
- Fundamentals of Photovoltaic.
- Electrical Circuits.
- Utilization of Electrical Power.
- Electrical Power Engineering.
- Energy Conversion.
- Measurement and Instrumentation.
- Fundamentals of Engineering.
- Automatic Control.

▪ Microprocessor Based Automated Systems

Thesis Supervision

No	Name	Degree	Dates	Comments	Supervisors
1	Sayed Mohamed	M.Sc	Oct. 2018 – April 2021	Thesis: Control and Operation of Hybrid Microgrid	Prof. Dr. Mostafa Marei Dr. Mohamed Mokhtar
2	Walid Hatahet	M.Sc	Nov. 2018 – December 2020	Thesis: Performance Enhancing of Grid-Connected DC Microgrids	Prof. Dr. Mostafa Marei Dr. Mohamed Mokhtar
3	Merna Khaled Abbas	M.Sc	Jan. 2019 - Today	Thesis: Performance Enhancing of Wind Energy conversion system	Prof. Dr. Ahmed Abdel-Sattar Prof. Dr. Mostafa Marei Dr. Mohamed Mokhtar
4	Ahmed Ragab Mohamed	M.Sc	Jan. 2019 - Today	Thesis: Modelling and analysis of a wireless power transfer system	Prof. Dr. Ahmed Abdel-Sattar Prof. Dr. Mostafa Marei Dr. Mohamed Mokhtar

Training:

- Quality standards in the teaching process :Faculty And Leadership Development center (FLDC) –Ain shams university-Egypt.
 - Management of time and meetings :Faculty And Leadership Development center (FLDC) –Ain shams university-Egypt
 - Using technology in teaching :Faculty And Leadership Development center (FLDC) –Ain shams university-Egypt
 - Ethics of scientific research: Faculty And Leadership Development center (FLDC) – Ain shams university-Egypt
 - Communication skills: Faculty And Leadership Development center (FLDC) – Ain shams university-Egypt
 - International publication: Faculty And Leadership Development center (FLDC) – Ain shams university-Egypt
-

UNDER GRADUATE SUMMER Training:

- Training course at **Schlumberger**, from 30/7/2009 to 12/8/2009 and it was in artificial lift.
- Training course at **The Arab Contractors**, from 5/7/2009 to 29/7/2009 and it was in distribution (lighting, sockets, panels & elevators).

- Training course at **Ministry of Electricity and Energy**, from 21/6/2009 to 3/7/2009 and it included two weeks the first week was in the field of transformers and automatic control and the second was in protection.

Computer Skills:

- Microsoft Office Tools.
- **Engineering Programs** : PSCAD, Matlab, AutoCAD, Dialux.



السيرة الذاتية للاستاذ المساعد: أمير يس حسن سليمان

Amir Yassin Hassan Soliman

Egypt – El Wasta – Beni suef
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eng.amir2010@gmail.com
amir@eri.sci.eg

Nationality: Egyptian.

Marital Status: Married.

Military status: Finally exempted.



Academic Qualifications

Doctoral degree

- **Ph.D. in Electrical Engineering (2019) - Electrical Power & Machines Department, Faculty of Engineering, Ain Shams University**
Grade: 4/4
Thesis Title : “Advanced Control of Permanent Magnet Synchronous Motor for Hybrid Electric Vehicles”

Master degree

- **M.Sc., Master of Engineering Science (2014)**
Thesis Title : “Thermal Model of Electric Motor in Hybrid Electric Bus”

Diploma

- **Digital Marketing Professional Diploma (2019) – DM Arts Academy.**

Bachelor's degree

- **Graduation: May 2010: B.Sc. In Electrical Power & Machines Department.**
Faculty of Engineering - Fayoum University.
Accumulative grade: "Excellent With Honor Degree" (87.75%)
Graduation Project: Utilization “Complete Electrical Design of a Facility of Large Area”.
Project grade: "Excellent" (96.67%)

Current Position

- **Associate Research Professor at Electronics Research Institute (ERI).** (September 2024 up to now)
- **Associate Professor at the Faculty of engineering - Cairo University.** (January 2025 up to now – delegation as a part time)
- **Associate Professor at the Faculty of engineering - Nahda University (NUB).** (October 2024 up to now – delegation as a part time)
- **Head of Entrepreneurship Office at Electronics Research Institute (ERI).** (June 2024 up to now)
- **Head of Technology Transfer Office (TTO) at Electronics Research Institute (ERI).** (May 2019 up to now)

Previous Positions and Work Experience

- **Researcher at the Electronics Research Institute (ERI).** (April 2019 – September 2020)
- **Assistant Professor and Director of Renewable Energy Program, Korean Egyptian Faculty for Industry and Energy Technology, Beni Suef Technological University** (October 2020 - October 2021)
- **Researcher at Electronics Research Institute (ERI).** (November 2021– August 2024)

- Assistant Professor at the Faculty of engineering - Nahda University (NUB). (March 2023 – September 2024 - delegation as a part time)
- Assistant Professor at the Faculty of engineering – Beni Suef University (BSU). (September 2023 one academic year - delegation as a part time)
- Trainer of Utilization and Distribution Courses at Electronics Research Institute (ERI) and at the Housing and Building National Research Centre (HBRC). (June 2015 - September 2024)
- Assistant Researcher at the Electronics Research Institute (ERI). (December 2014 - April 2019)
- Researcher Assistant at the Electronics Research Institute. (August 2011 - November 2014)
- Consultant Electrical Engineer at the Housing and Building National Research Center (HBRC) (September 2019 - September 2020 – delegation as a part time)
- Senior Electrical Site Engineer at EHAF Consulting Office (Jan 2020 – June 2020).
- Consultant Electrical Engineer at Architectures & Planning Group (APG). (January 2016 – April 2016 - as a part time).
- Consultant Electrical Engineer at Architectural Consulting House (ACH). (March 2013 – May 2015 - as a part time).
- Lecturer at Pyramids Higher Institute of Engineering and Technologies (First Term 2013).
- Consultant Electrical Engineer at Circle Consulting Office (October 2010 - March 2012– as a part time).
- Electrical Design & Executive Engineer in the International Company for Engineering & Trading (September 2010 - August 2011).

Patents

1. **Amir Yassin Hassan**, Mohamed El-Sayed Abdalbar, “Innovating a high-efficiency hybrid laboratory water distillation device using thermoelectric generators (TEG) and solar collectors”, No. 2021101695, Scientific Research Academy, 2021.
2. **Amir Yassin Hassan**, Mohamed El-Sayed Abdalbar, Taha Ahmed Mohammed, “Innovating a mobile hybrid device for generating electricity and desalinating sea water using thermoelectric generators (TEG) and solar energy”, No. 202205682, Scientific Research Academy, 2022.
3. **Amir Yassin Hassan**, Mohamed El-Sayed Abdalbar, Taha Ahmed Mohammed, “Smart portal for displaying grain movements and calculating the volume of grains in storage silos using artificial intelligence”, Scientific Research Academy, 2024.
4. **Amir Yassin Hassan**, Mohamed El-Sayed Abdalbar, Taha Ahmed Mohammed, “AI-based system for efficiently managing the incoming and outgoing movement of grain to storage silos”, Scientific Research Academy, 2024.
5. **Amir Yassin Hassan**, Mohamed El-Sayed Abdalbar, Taha Ahmed Mohammed, “EcoPure Tri-Stage Water Distiller”, Scientific Research Academy, 2025. – Under registration

Thesis Students Supervision

1. Doaa Ahmed Gad El Kareem, “Optimization of wind cube design for wind turbine”, M.Sc. Thesis, Faculty of Engineering, Fayoum University, Egypt, September 2019 to May 2021.
2. Ahmed Goudah Rohieem “Advanced control of axial flux PMSM for EV”, M.Sc. Thesis, Faculty of Engineering, Fayoum University, Egypt, January 2020 to November 2023.
3. Ahmed Sayed Abd El-Razek, “Economics and reliability analysis of stand-alone electric power generation system from renewable sources”, M.Sc. Thesis, Faculty of Engineering, Fayoum University, Egypt, April 2021 to March 2023.
4. Doaa Ahmed Gad El Kareem, “Optimal Design of a Hybrid Power Generation System for Rural Areas”, Ph.D. Thesis, Faculty of Engineering, Menia University, Egypt, September 2021 to date.
5. Doaa Sayed Abd El-Hameed, “Optimized design and analysis of an off-grid hybrid renewable energy system for DC loads”, M.Sc. Thesis, Faculty of Engineering, Fayoum University, Egypt, November 2023 to date.

Research Projects:

1. Participating as a **PI** in the project “Smart portal for displaying grain movements and calculating the volume of grains in storage silos” funded by Electronics Research Institute, 2024.
2. Participating as a **PI** in the project “Establishing an Entrepreneurship Club at the Electronics Research Institute” funded by the Academy of Scientific Research and Technology, 2024.
3. Participating as a **PI** in the project ID - 47209 “A novel, high-efficiency hybrid technology for seawater desalination using thermoelectric generators (TEG) and renewable energies based on artificial intelligent (AI)”, funded by **STDF**, 2023.
4. Participating as a **PI** in the project “Hybrid device for laboratory water distillation using thermoelectric generators (TEG) and solar energy” funded by Electronics Research Institute, 2022.
5. Participating as a **CO-PI** in the project titled “An end-to-end feeder protection platform with IOT cloud connectivity for power distribution systems”, funded by **STDF**, 2022.
6. Participating as a **member** in the project “Design and Implementation of Electrical Vehicle Battery Charger using PV System with Maximum Power Point Tracker under Different Conditions” funded by Electronics Research Institute, 2022.
7. Participating as a **CO-PI** in the project “Localization of Technology Transfer Offices”, funded by the Academy of Scientific Research and Technology, May 2019 up to now.
8. Applying as a **member** in the project “Complementary Energy Saving for Lighting Loads inside ERI Buildings” funded by Electronics Research Institute, December 2021.

Books Publications

1. **Amir Yassin Hassan Soliman**, “Programmable Logic Control (PLC)”, Book, KOREATECH, 2020.

Research Papers Publications

1. Said, M., Ismaeel, A. A., El-Rifaie, A. M., Hashim, F. A., Bouaouda, A., **Amir Y. Hassan** & Houssein, E. H., Evaluation of modified fire hawk optimizer for new modification in double diode solar cell model. *Scientific Reports*, 14(1), 1-33, 2024.
2. **Amir Y. Hassan**, Essamudin Ali Ebrahim , M. Elzalik, Saber. M. Saleh, Real-time Advanced Sensorless Control of Axial Flux Synchronous Motor, *International Journal of Power Electronics and Drive Systems (IJPEDS)*, 15(3), 1358-1368., 2024.
3. Ayman. M. Soliman, Safaa. M. Emara, **Amir Y. Hassan**, A Novel Technique for High-Performance Grid Integrated with Restricted Placement of PV-DG considering Load Change, *Journal of Electrical and Computer Engineering*, 2024(1), 5395272, 2024.
4. Maha A. Elmohallawy, **Amir Y. Hassan**, Amal F. Abdel-Gawad, Sameh I. Seleem, Transformer Faults Classification Based on Convolution Neural Network, *International journal of electrical and computer engineering systems*, 14(9), 1069-1075, 2023.
5. Ahmed S. Abdelrazek, Saber. M. Saleh, **Amir Y. Hassan**, Khalid H. Ibrahim, White Shark based optimization of a Stand-alone PV System with Different Tracking Techniques, 24th International Middle East Power Systems Conference, (MEPCON'2023), IEEE, Mansoura University, Egypt, (19-21) December 2023. (Scopus)
6. Khalid H. Ibrahim, **Amir Y. Hassan**, Ahmed S. Abdelrazek, Saber. M. Saleh, Economic analysis of stand-alone PV-battery system based on new power assessment configuration in Siwa Oasis–Egypt. *Alexandria Engineering Journal*, 62, 181-191, 2023.
7. **A. Y. Hassan**, Alaa A. K. Ismaeel, Mokhtar Said, Rania M. Ghoniem, Sanchari Deb, And Abeer Galal Elsayed, Evaluation of Weighted Mean of Vectors Algorithm for Identification of Solar Cell Parameters, *Processes*, 10(6), 1072, 2022.
8. Saleh, S. M., **Hassan, A. Y.**, Sensorless based SVPWM-DTC of AFPMSM for electric vehicles, *Nature, Sci Rep* 12, 9023 (2022). <https://doi.org/10.1038/s41598-022-12825-x>
9. **Amir Y. Hassan**, A. M. Soliman, D.A. Ahmed and S.M. Saleh, Wind cube optimum design for wind turbine using meta-heuristic algorithms. *Alexandria Engineering Journal*, 61(6), 4911-4929, 2022.
10. Alsharif, M. H., Kannadasan, R., **Hassan, A. Y.**, Tawfik, W. Z., Kim, M. K., Khan, M. A., & Solyman, A. A., Optimization Analysis of Sustainable Solar Power System for Mobile Communication Systems. *CMC-COMPUTERS MATERIALS & CONTINUA*, 71, 3243-3255, 2022.

11. Ismaeel, A. A., Houssein, E. H., **Hassan, A. Y.**, & Said, M., Performance of Gradient-Based Optimizer for Optimum Wind Cube Design. *CMC-Computers, Materials & Continua*, 71(1), 339–353, 2022.
12. **Amir Y. Hassan**, M. Said and S.M. Saleh, Estimation of the transformer parameters from nameplate data using turbulent flow of water optimization technique. *Indonesian Journal of Electrical Engineering and Computer Science*, Vol. 25, No. 2, pp. 639~647, February 2022.
13. **A. Y. Hassan**, Ahmed G. Rohieem, S. M. Saleh, Direct Torque Control of Salient Pole AFPMSMs with SVPWM for Electric Vehicle, *International Journal of Power Electronics and Drive Systems (IJPEDS)*, 13(4), 2022.
14. **A. Yassin**, M. Elzalik, "Signal Injection Based Sensorless Online Monitoring of Induction Motor Temperature", 23rd International Middle East Power Systems Conference, (MEPCON'2022), IEEE, Cairo, Egypt, (13-15) December 2022. (Scopus)
15. M. Elzalik, Taha A. Enany, Mokhtar Said and **A. Yassin**, "Comparison between Cuckoo Search algorithm and Grey Wolf Optimizer Algorithm on Photovoltaic Models Performance", 23rd International Middle East Power Systems Conference, (MEPCON'2022), IEEE, Cairo, Egypt, (13-15) December 2022. (Scopus)
16. Gad, M. S., Said, M., & **Hassan, A. Y.**, Effect of different nanofluids on performance analysis of flat plate solar collector. *Journal of Dispersion Science and Technology*, 42(12), 1867-1878, 2021.
17. Shaban, H., Houssein, E. H., Pérez-Cisneros, M., Oliva, D., **Hassan, A. Y.**, Ismaeel, A. A. & Said, M., Identification of Parameters in Photovoltaic Models through a Runge Kutta Optimizer. *Mathematics*, 9(18), 2313, 2021.
18. O. Barakat, A. Mansour, M. Abd Elrazik, A. Aboshosha, **A. Yassin**, "Simulation Based Energy Consumption Optimization for Buildings by Using Various Energy Saving Methods", *Advances in Science, Technology and Engineering Systems Journal*, Vol 5, Issue 6, pp 1480-1487, 2020.
19. Osama M. Arafa, Said A. Wahsh, Mohamed Badr, **Amir Yassin**, "Grey Wolf Optimizer Algorithm Based Real Time Implementation of PIDTDC and FDTDC of PMSM", *International Journal of Power Electronics and Drive Systems (IJPEDS)*, 11(3), pp1640-1652, 2020.
20. S. Wahsh, M. Badr, **A. Yassin**, "Implementation of Cuckoo Search Optimized PIDTDC and FLDTC of PMSM with NEDC Reference Speed", 6th International Conference on Advanced Control Circuits and Systems (ACCS'019), Hurghada, Egypt, 17 - 20 November 2019.
21. M. Said, **A. Yassin**, "Operation Study of a Combined System of Diesel Engine Generators and Wind Turbine with Battery Storage System", 6th International Conference on Advanced Control Circuits and Systems (ACCS'019), Hurghada, Egypt, 17 - 20 November 2019.
22. **A. Yassin**, M. Badr, S. Wahsh, "Cuckoo Search Based DTC of PMSM", *International Journal of Power Electronics and Drive Systems (IJPEDS)*, 9(3), pp1106-1115, 2018.

23. **A. Yassin**, M. Badr, S. Wahsh, "Cuckoo Search Based Real Time Implementation of Direct Torque Control of PMSM", 20th International Middle East Power Systems Conference, (MEPCON'2018), Cairo, Egypt, December 2018. (Scopus)
24. **A. Yassin**, M. Badr, S. Wahsh, "dSPACE DS1202 Based Real Time Implementation of Cuckoo Search Optimized FDTC of PMSM ", 20th International Middle East Power Systems Conference, (MEPCON'2018), Cairo, Egypt, December 2018.
25. S. Wahsh, M. Badr, **A. Yassin**, and M. Algabalawy, "Cuckoo search meta-heuristic algorithm: developments and applications", 5th International Conference on Advanced Control Circuits and Systems (ACCS'017), Alexandria, Egypt, 5 - 8 November 2017.
26. S. Wahsh, J. Shazly, **A. Hassan**, " Effect of Rotor Speed on the Thermal Model of AFIR Permanent Magnet Synchronous Motor ", International Journal Of Renewable Energy Research, 2017, 7, 9.
27. S. Wahsh, J. Shazly, **A. Hassan**, " Steady State Heat Conduction Problems of AFPMSM Using 3D Finite Element ", 2016 International Middle-East Power Systems Conference (MEPCON), Dec 27-29, 2016, IEEE PES Trans.
28. S. Wahsh, J. Shazly, **A. Hassan**, " Thermal modeling of an AFPMSM: A review", Journal of Electrical Systems and Information Technology (JESIT), May 2015, Vol. 2(1), p.p. 18-26.
29. J. Shazly, S. Wahsh, **A. Hassan**, " Thermal Analysis of Axial Flux Permanent Magnet Synchronous Motor using 3D Finite Elements ", International Journal of Thermal Technologies (IJTT), Dec 2014, Vol. 4, No.4 p.p. 313-319, ISSN: 2277-4114.
30. **Amir Y. Hassan**, Daa Salama Abdelminaam; Ashraf AbdelRaouf; Rania M. Ghoniem; Rasha Orban; Mokhtar Said, Search and rescue optimization algorithm for estimation parameters in Photovoltaic models, Ain Shams Engineering Journal, 2025, (under publication).
31. **Amir Y. Hassan**, Khalid H. Ibrahim, Ahmed S. Abdelrazek, Saber. M. Saleh, Effect of the load distribution on the optimum sizing of a hybrid micro grid, *Alexandria Engineering Journal*, 2025, (under publication).
32. M. Elzalik, Abouelmaaty M. Aly, **Amir Y. Hassan**, M. A. Abdelghany, Enhancing frequency response using artificial intelligence techniques in the power system with renewable energy resources, *Sustainable Futures*, 2025, (under publication).
33. **Amir Y. Hassan**, Control Strategies and Techniques for Permanent Magnet Synchronous Motor Used in Electric Vehicles, *Energy Systems*, 2025, (under publication).
34. **Amir Y. Hassan**, Safaa. M. Emara, Effect of PV-DG defragmentation on grid performance considering load change, *Journal of Electrical and Computer Engineering*, 2025, (under publication).

35. M. Saber Eltohamy, Safaa. M. Emara, **Amir Y. Hassan**, Abouelmaaty M. Aly, Mona N. Eskander, Hisham El Khashab, Faeka M. H. Khater and S. Wahsh, Holistic Review on Electrical Energy in Egypt: Challenges and Solutions, Environment, *Development and Sustainability*, 2025, (under publication).
36. **Amir Y. Hassan**, M. Elzalik, Taha A. Enany, Saber. M. Saleh, M. Hassaneen, M. Setouhy, Critical issue on the desalination process and the available mobile water distillers in Egypt: Current status and future opportunity, *Desalination*, 2025, (under publication).
37. **Amir Y. Hassan**, D.A. Ahmed and S.M. Saleh, M. Elzalik, Stand alone PV-Wind system with critical economical point optimization. *Alexandria Engineering Journal*, 2025, (under publication).
38. Mohamed Lahdeb, Badr Al Faiya, M.M.R. Ahmed, Bachir Bentouati, Ragab A. El-Sehiemy, Ali Hennache, and **Amir Y. Hassan**, Hybrid Brown-Bear and Hippopotamus Optimization with Quasi-Opposition-Based Learning for Enhanced Multi-dimension Optimal Power Flow Solution, IEEE Access, 2025, (under publication).
39. Mohamed Mokhtar, Mahmoud Samy, Naggar Hemdan and **Amir Y. Hassan**, Hybrid Optimized Droop Control for DC Microgrid with Storage Element Based on CMPN Algorithm, Ain Shams Engineering Journal, 2025, (under publication).

Awards & Honors

1. **"Startup Olympics Competition"**, First Place, Academy of Scientific Research and Technology, *July 2024*.
2. **"The Best Researcher 2023-2024"**, at Electronics Research Institute (ERI), *September 2024*.
3. **"Egypt Government Excellence Award"**, Egyptian Government, Egypt, 2023.
4. **"The Best Researcher 2022-2023"**, at Electronics Research Institute (ERI), *23 May 2023*.
5. **"Innovation Award"** from the 7th Cairo International Innovation Exhibition, *14 February 2023*.
6. **"Innovation award"**, in "INNOVATORS 2022" competition for the project titled **"Hybrid device for laboratory water distillation using thermoelectric generators (TEG) and solar energy"**, Academy of Scientific Research and Technology, *27 October 2022*.
7. **"The Best Assistant Researcher 2019-2020"**, at Electronics Research Institute (ERI), *15 May 2020*.
8. **"Innovation Award"** from the 6th Cairo International Innovation Exhibition, *25 October 2019*.
9. **"The Best Assistant Researcher 2018-2019"**, Second Place at Electronics Research Institute (ERI), *21 May 2019*

10. **"The Best Assistant Researcher 2017-2018"**, First Place at Electronics Research Institute (ERI), *15 May 2018*
11. **"Outstanding Reviewer Award"**, at "Energy Conversion and Management Journal" (El Sevier), *7 November 2017*
12. **"The Best Assistant Researcher 2016-2017"**, First Place at Electronics Research Institute (ERI), *24 May 2017*
13. **"The Best Assistant Researcher 2015-2016"**, First Place at Electronics Research Institute (ERI), *9 May 2016*
14. **"Engineering Innovation Competition 2015"** "First Place at Egyptian Engineers Syndicate, *17 March 2015*.
15. **Fulbrighters Face Egypt's Scientific Challenges "Young Entrepreneurs in Science and Engineering"**, awarded in 2014, FULBRIGHT.
16. **"Siemens Student Award Middle East 2013"** Choice Award Winner with project **"EGY Tracker"**, *30 September 2013 - Final Ceremony, 12 February 2014*.
17. **"Siemens Student Award Middle East 2013"** Semi-Finalist Winner with project **"EGY Tracker"**, *20 August 2013*.
18. **"Cairo innovation slam"** Winner at German Science Centre Cairo (DWZ) and (DAAD) with project **"Future Engine"**, *15 December 2013*.
19. **"The Arab Technology Business Plan"** Competition Winner **"Semi-Final Stage"** with project **"EGY Charger"** Egypt, *12 December 2013*.
20. **"The Young Innovators' Awards – Shağal Competition"** Semi-Finalist Winner with project **"EGY Tracker"**, *18 December 2014*.
21. **"2nd Universities Youth Forum for ROBOT"** "Winner at Helwan University, *April 2009*.
22. Appreciation Certificate from **Fayoum University, Science Day**, *27 December 2010*.
23. Appreciation Certificate from Scientific Committee, **Faculty of Engineering, Fayoum University**, *2009*.

Academic Teaching Experience

- Associate Professor at the Faculty of engineering - Nahda University (NUB). (October 2024 up to now – delegation as a part time)
- Assistant Professor at the Faculty of engineering - Nahda University (NUB). (March 2023 – September 2024 - delegation as a part time)
- Assistant Professor at the Faculty of engineering – Beni Suef University (BSU). (September 2023 one academic year - delegation as a part time)
- Assistant Professor and Director of Renewable Energy Program, Korean Egyptian Faculty for Industry and Energy Technology, Beni Suef Technological University (October 2020 - October 2021)
- Lecturer at Pyramids Higher Institute of Engineering and Technologies (First Term 2013).
- Trainer of Utilization and Distribution Courses at Electronics Research Institute (ERI) and at the Housing and Building National Research Centre (HBRC). (June 2015 up to now)

Courses Taught

- Programmable Logic Control (PLC)
- Power Electronics I
- Power Electronics II
- Electronic Principles
- Operational Amplifier Circuits and applications
- Renewable Energy
- Matlab
- Physics1
- Smart Grid
- Electric Drives
- Electrical Machines
- Power System Planning
- Applications of Power Electronics
- Modelling and Simulation of Engineering Systems
- Project Management for Electrical Engineering
- Utilization and Management of Electrical Energy
- Power System Analysis
- Electrical Distribution Systems Installation
- Electromechanical Systems Maintenance
- Sensors and Transducers Systems
- Electric Circuit I
- Electric Circuit II

Trainer

- A training course entitled **(Smart Home Automation)** Training Center of the **Electronics Research Institute, 2019**
- A training course entitled **(Occupational safety and protection in electrical systems)** Training Center of the **Egyptian Society of Engineers, 2019.**
- A training course entitled **(Preparing an Electrical Engineer to Work in the Consulting Offices and Contracting Companies)** Training Center of the **Electronics Research Institute, 2018.**
- A training course entitled **(Pricing and price analysis for electrical BOQ items)** Training Center of the **Housing and Building National Research Center (HBRC), 2018.**
- Speaker at **(PV Field Trip), Zewail City of Science and Technology**, held in Marsa Alam, Egypt, 6-9th September 2016.
- A training course entitled **(Pricing and price analysis for electrical BOQ items)** Training Center of the **Housing and Building National Research Center (HBRC), 2016.**
- A training course entitled **(Preparing an Electrical Engineer to Work in the Consulting Offices and Contracting Companies)** Training Center of the **Electronics Research Institute, 2016.**
- A training course entitled **(Electrical Design of Buildings and Execution Basics)** Training Center of the **Electronics Research Institute, 2016.**
- A training course entitled **(Utilization - Complete Electrical Design of a Facility of Large Area)** Training Center of the **Electronics Research Institute, 2015.**
- A training session entitled **(Utilization - Complete Electrical Design of a Facility of Large Area)**, IEEE orientation day, Fayoum University, Fayoum, Egypt, *March 2014.*

Reviewer

Reviewer and referee at:

1. IEEE ACCESS
2. IEEE-IAS Electric Machines
3. Energy Conversion and Management Journal
4. International Journal of Renewable Energy Research
5. IETE Journal of Research
6. Journal of Electrical Engineering & Technology
7. Advances in Science, Technology and Engineering Systems Journal (ASTESJ)
8. Arabian Journal for Science and Engineering
9. Fayoum University Journal of Engineering

Conferences

1. **IEEE 24th International Middle East Power Systems Conference (MEPCON'2023)**, Mansoura University, Egypt, (19-21) December 2023.
2. **IEEE 23rd International Middle East Power Systems Conference (MEPCON'2022)**, KAFRELSHEIKH University, Cairo, Egypt, *December* 13-15, 2022.
3. **IEEE 6th international conference on advanced control circuits and systems (ACCS'019)**, Hurghada, Egypt, 17 - 20 November 2019.
4. **20th International Middle- East Power Systems Conference (MEPCON'2018)**, Cairo University, Cairo, Egypt, *December* 18-20, 2018.
5. **IEEE 5th international conference on advanced control circuits and systems (ACCS'015)**, Alexandria, Egypt, 5-8 *November* 2017.
6. **18th International Middle East Power Systems Conference (MEPCON'2016)**, Helwan University, Cairo, Egypt, *December* 27-29, 2016.
7. **4th international conference on advanced control circuits and systems (ACCS'015)**, Luxor, Egypt, 15-17 *November* 2015.
8. **3rd International Conference on NEW PARADIGMS IN ELECTRONICS & INFORMATION TECHNOLOGY (PEIT'015)**, Luxor, Egypt, 18-19 *November* 2015.
9. **Industrial and Academia Collaboration Conference (IAC Conf)**, Cairo, Egypt 6-8 *April* 2015.
10. **16th International Middle- East Power Systems Conference (MEPCON'2014)**, Ain Shams University, Cairo, Egypt, 23-25 *December* 2014.
11. **Egyptian Engineering Day 2014**, Cairo International Conferences Centre, Cairo, Egypt, 10-11 *September* 2014.
12. Fulbrighters Face Egypt's Scientific Challenges "**Young Entrepreneurs in Science and Engineering**" Conference by The Binational Fulbright Commission in Egypt, National Research Centre, Giza, Egypt, 17 *April* 2014.
13. **Development of Engineering Industries**, second session, specialized bilateral meetings, Cairo, Egypt, 10 *March* 2014.

14. **Industrial and Academia Collaboration Conference (IAC Conf)**, Cairo, Egypt 3-5 March 2014.
15. The First Conference of "**Engineering solutions and challenges of the era**", Faculty of Engineering, Fayoum University, Egypt, 27-29 November 2013.
16. **IEEE 6th international conference on advanced control circuits and systems (ACCS'019)**, Hurghada, Egypt, 17-20 November 2019.

Training and Courses

1. **Strategic Planning Skills**, Nahda University (NUB), August 2024.
2. **Internal Audit in Accordance with The Requirements of The International Standard ISO/IEC 17025:2017**, Center of Studies and Consultancies of the Total Quality Systems and Environments (T.Q.C), September 2023.
3. **Management Quality System of Laboratories in Accordance with ISO/IEC 17025:2017**, Center of Studies and Consultancies of the Total Quality Systems and Environments (T.Q.C), November 2023.
4. **Artificial Intelligence**, Centre for Development of Advanced Computing (C-DAC), New Delhi, September 2023.
5. **HCIA – AI v3.5 instructor**, HUAWEI, July 2023.
6. **PLC Lab**, Smart Systems, 2021.
7. **Local Training Program (Mechatronics) for the Teaching Staff of BST University**, Korea International Cooperation Agency, 2020.
8. **Introduction to patents**, Derwent, EKB, 2020.
9. **HIL Specialist Certification, HIL ACADEMY**, March 2019.
10. **Leading Teams**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 27 November 2018.
11. **Design Effective Training Course**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 25 December 2018.
12. **Debate Workshop- How to Formulate and Structure your Argumentation**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 19 September 2017.
13. **Presentation Skills**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 11 September 2017.
14. **Research Management**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 25 July 2017.
15. **Scientific writing structure and logic**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 9 July 2017.
16. **Funding Resources for Research Projects**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 14 May 2017.
17. **How to Present Scientific Paper**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 14 April 2015.
18. **Self-Marketing**, German Science Centre Cairo (DWZ), and (DAAD Cairo), Egypt, 3 June 2015.

19. Organization of the following training courses in collaboration with **DAAD Kairo Akademie** within the activities of TICO office programs, 2015.
 - **Competitive Research Proposal Writing**
 - **Academic Writing -How to Present Scientific Papers**
 - **Scientific Thinking and Argumentation skills for Problem**
 - **Self-Management**
 - **Self-Marketing**
20. **Project Management**, German Science Centre Cairo (**DWZ**), and (**DAAD Cairo**), Egypt, 22 June 2014.
21. **Scientific Thinking and Argumentation Skills**, German Science Centre Cairo (**DWZ**), and (**DAAD Cairo**), Egypt, 22 May 2014.
22. A training scholarship courses entitled (**Project Management, International Networking, and Communicating Science and Academic Research**) in German Science Centre Cairo (**DWZ**) and Siemens S.A.E., 2013.
23. A training course entitled (**ANSYS**), Training Center of the **Electronics Research Institute**, 2013.
24. A training course entitled (**Advanced PLC**), Training Center of the **Electronics Research Institute**, 2013.
25. A training course entitled (**Basics of Scientific Research**), Training Center of the **Electronics Research Institute**, 2012.
26. One week training at the company of **SEGA M.**, August 2012.
27. One week training at the company of **Three Brothers (3B)**, July 2012.
28. One month training at **Egyptian Iron & Steel Company**, July 2009.
29. **Plc advanced course (Level-1)** at Jeilecom A.D.Panasonic, **Grade: Excellent**, 2009.
30. **AutoCAD course** at Engineering Syndicate, **Grade: Excellent**, 2008.
31. Successfully completed a comprehensive seminar in **The Art Of Effective communication** by the Canadian training center. By **Dr: Ibrahim Elfiky**, 2008.
32. One month training at **Upper Egypt Electricity Production Company (El kuriemat Training Center)**, August 2008.
33. One week training at **Hurghada International Airport**, September 2007.
34. One month training at **the Egyptian Company for Electricity Transmission** August 2007.
35. One month training at **Middle Egypt Electricity Distribution Company (Beni-suef Electricity Sector)**, July 2007.

Research Interests

Control Systems, Renewable Energy, Artificial Intelligence, Electrical and Mechanical Engineering, Electrical Machines, Electric Vehicles, Power Electronics, Thermal Performance, Axial Flux Motors, Solar Energy, Photovoltaic Systems, Tracking Systems, Thermoelectricity, Heat Transfer, Thermal Analysis, Energy Conversion, Energy Storage, Stirling Engines, Water Distillation, Simulation, Modelling, Matlab.

Some of Accomplished Projects

- Supervision on the execution of Projects NN1 and NN2 at new capital.
- Full electrical design of the social building in Hadayek El Ahram club and the security systems.
- Supervision on the execution of League of Arab States Branch of the Union National Bank (UNB).
- Full electrical design of Nahda Branch of the National Bank, Port Saeed Branch of the National Bank, a new section at the factory of Hekma Farma, a section at the factory of Americana Group – Quality, a hotel and a hanger adjoining two office buildings for Engineer Squadron at inshas air base.
- Full electrical execution of a hanger adjoining two office buildings for Engineer Squadron at inshas air base.
- Modifying the electrical design of orthopedic part of the helmeya hospital.
- Full electrical design of many Residential buildings.

Skills

Computer & Software Skills

- Excellent knowledge of Microsoft Windows, Microsoft Office.
- Excellent Knowledge of Using the Internet and scientific searches.
- Matlab, AutoCAD, DIALUX, ANSYS programs

Working skills

- Innovation skills
- Ability to work as an effective team member.
- High research capability.
- Ability to work under pressure.
- Open minded to new ideas and new technologies.
- Self-learning ability.
- Responsible.

Language Skills

- Arabic: “Mother Tongue”.
- English: “very good”, I passed TOEFL test with total score 533 in Nov. 2011.
- French: “Fair”.

References

Available upon request



السيرة الذاتية للدكتور: محمد قرني سعد خليفة

CURRICULUM VITAE



Name : **Mohammed Kourany Saad Khalifa**
Job : **Head of Electrical and Renewable Energy Department,
Faculty of Engineering –NAHDA University**
Email : mohkourany@gmail.com, Mohkourany@yahoo.com
mohammed.saad@nub.edu.eg
Tel. : **01118473003 - 01202501898**

PERSONAL DATA

Nationality : Egypt
Religion : Islam
Profession : Electrical & Renewable Energy with Automation System
Date of Birth : 15-9-1972
Marital Status : Married
Languages : Arabic, English (fluent in speaking and writing)
Address : 12th , Mohamed said st., from Al Manshea st. , Talbia, Faysal, Giza .

EDUCATION QUALIFICATION

1. PHD in Electrical Engineering, Faculty of Engineering of Shoubra, University of Benha, Egypt – Jan 2015.
Thesis title :- "A FACTS Stabilization Scheme for Renewable Energy Conversion Systems Using Genetic Algorithm "
2. M.Sc. in Electrical Engineering and Technology, Faculty of Engineering of Benha, University of Benha, Egypt – October 2004.
Thesis title :- "Genetic Algorithm Tuning of SVC controllers For Damping Power System Oscillation in A Multimachine Power System"
3. B.Sc. in Electrical Engineering and Technology, Faculty of Engineering of Benha, University of Benha, Egypt - June 1996 – Very Good, (Automatic Control and Measurements Division)

PROFESSIONAL EXPERIENCE

1- from 9/2019 to Now

Nahda University - Faculty of Engineering - Ben Suif (NUB).

Job title : Head of Electrical and Renewable Energy Department

2- from 6/2015 to Now

Nahda University - Faculty of Engineering - Ben Suif (NUB).

Job title : Lecture Electrical & Renewable Energy also Automation System to teaching for

No.	Course	No.	Course
1.	Energy Resources and Renewable Energy	12.	Solar Energy
2.	Fundamentals of Photovoltaic	13.	Wind Energy
3.	Modeling and Simulation of Engineering Systems	14.	Electrical Power Engineering
4.	Automatic Control Systems	15.	Electric Circuits (1)
5.	Electrical Machines & Transformers	16.	Electric Circuits (2)
6.	Electrical Machines (1)	17.	Computers skills
7.	Electrical Machines (2)	18.	Power Electronics (1)
8.	Sensors and Transducers Systems	19.	Power Electronics (2)
9.	Electrical Measurements and Instrumentation	20.	Electromagnetic Fields
10.	Principles of Electrical Engineering	21.	Energy Graduation Project (1)
11.	Power Electronics and Motor Device	22.	Energy Graduation Project (2)

3- from 12/2016 to 8/2022

Nahda University - Faculty of Engineering - Ben Suif (NUB).

Job title : Director of Quality Assurance Unit.

4- from 10/2012 to 6/2015

Ophthalmology Research Institute (RIO), Giza - Ministry of Scientific Research

Job title : Electrical & Automation Engineering.

5- from 11/2006 to 9/2012

Engineering & Housing Directorate, Royal Saudi Air Defense Forces, Ministry of Defense & Aviation,
KSA

Job title : Consultant & Researcher in Electrical & Automation Engineering.

6- from 9/1996 to 10/2006

Job title :- Researcher assistant in Benha Higher Institute of Technology to teaching for courses:-

No.	Course	No.	Course
1.	Microelectronics	6.	Semiconductors
2.	Signal processing electricity & electronic.	7.	Measurements
3.	Technology of electricity engineering.	8.	Electrical power
4.	Computers	9.	Control System
5.	Electrical machine	10.	Application of Engineering

7- from 9/2004 to 6/2006

Job title :- Researcher assistant in 6 October University, Faculty Engineering, to teaching for courses:-

No.	Course	No.	Course
1.	Microelectronics	5.	Measurements
2.	Signal processing electricity & electronic.	6.	Electrical power
3.	Technology of electricity engineering.	7.	Control Systems
4.	Electrical machine		

8- from 9/2005 to 6/2006

Job title :- Researcher assistant in Higher Institute of Engineering in 6 October, to teaching for courses:-

No.	Course	No.	Course
1.	Lab. Microelectronics	2.	Lab. Logic

9- from 7/1998 to 1/2000

Arab contractor Co. for employment and maintenance the escort and serves.

Job title :- Electrical & Controlling Engineer.

10- from 9/1996 to 7/1998 National Co. for telephony and electricity.

Job title :- Planning Engineer.

Publishing in international journals and international conferences

1. Mohamed Mahmoud Samy, Asmaa A. Ghany, Mohamed S. Kournay, “**Resilience of an Isolated Hybrid Renewable System Based on a BWR/BMR Optimization Technique**” 2025 26th International Middle East Power System Conference (MEPCON’2025), 979-8-3315-7716-2/25/\$31.00 ©2025 IEEE, December 2025, Aswan University, Egypt.
2. Ibram Y. Fawzy, Ahmed A. Zaki Diab, Mohamed A. Tolba, Hussien I. Abdul-Ghaffar, Mohamed Kourany Saad, “**Control of Grid-Connected PV Systems Using INC-Based MPPT Technique with DC-DC Boost Converter Integration**” the 8th IEEE 2026 International Youth Conference on Radio Electronics, Electrical, Power Engineering (IEEE REEPE), 1-2 April , 2026, Moscow, Russian Federation, 10.1109/REEPE69046.2026.11481398
3. Ahmed S. Menesy, Hamdy M. Sultan, Salah Kamel, Mahmoud Kassas, Mohamed A. Tolba, and Mohamed Kourany Saad, “**Starfish Optimization Algorithm for Enhanced Parameter Identification of Proton Exchange Membrane Fuel Cell Models**”, 2025 7th International Youth Conference on Radio Electronics, Electrical and Power Engineering (REEPE) | 979-8-3315-3183-6/25/\$31.00 ©2025 IEEE | DOI: 10.1109/REEPE63962.2025.10971117.
4. Laila Osama, Asmaa Salah, Saber M. Saleh, Mohamed Kourany, "**Meta-heuristic Optimization for Wind Turbine Control: Evaluating Performance with PI and Fractional PI Controllers for Maximum Power Extraction**", J. Electrical Systems 20-3 (2024): 7968-7982
5. M. K. Saad, H. M. El-Zoghby, F. M. Bendary, and M. M. Eissa, "**Hybrid Wind – Diesel Power Systems Stabilization Using STATCOM and Genetic Algorithm Optimization Technique**", Medwell Journals, 2014 – International Journal of Electrical and Power Engineering 8 (1): 19 – 25, 2014- ISSN: 1990-7958.
6. Omar H. Abdalla, Wedad M. Refaey, Mohamed K. Saad, Gamal Sarhan, "**Coordinated Design of Power System Stabilizers and Static VAR Compensators in a Multimachine Power System using Genetic Algorithm**", ICEENG' 2008, May 27-29,2008, 6th International Conference on Electrical Engineering, Military Technical College, Kobry El-Kobbah, Cairo, Egypt.
8. Omar H. Abdalla, Wedad M. Refaey, Mohamed K. Saad, Gamal Sarhan, "**Genetic Algorithm Aided Design of Static VAR Compensator (SVC) in a Multimachine Power System**", MEPCON’2005, December 16-18, 2005, ElKana University, Port said, Egypt.
9. Omar H. Abdalla, Wedad M. Refaey, Mohamed K. Saad, Gamal Sarhan, "**Genetic Algorithm Aided Design of Power System Stabilizers in a Multimachine Power System**", MEPCON’2003, December 16-18,2003, Minoufiya University, Shebin EL-Kom, Egypt.

TRAINING COURSES

No	Name	Donor	Place	Date
1.	Program self-study cycle and annual report	The National Authority to Ensure the Quality of Education & Accreditation (NAQAA)	Nahda University	Aug 2026
2.	How to prepare a self-study according to institutional accreditation standards			April 2026
3.	Program design from concept to implementation			April 2026
4.	Exam Systems for Higher Education Institutions			January 2022
5.	Teaching and Learning Strategy for Higher Education Institutions			January 2022
6.	Course Specification & Course Program			March 2020
7.	Self-Assessment of Higher Education Institutions			Jun 2017
8.	Education Program & Course Specification and Evaluation of Learning Outcomes for H.E. Institutes			March 2016
9.	Operation Instructions of Frequency Converter	Hitzinger Co.	EHD, Royal Saudi Ministry of Defense & Aviation, KSA	12 Feb. 2010
10.	Diagnose Problems and Make Decisions	Khalid Center for Consultants		16 Feb. 2010
11.	Coordination and Follow – Up Skills			19 Feb. 2010
12.	Maintenance and Repair of Electric Doors Wrapped Upper and CT	Research & Development Center for EHD		23 Aprl. 2011
13.	Automated Systems			10 Feb. 2008

WORKSHOPS & SEMINARS

No	Name	Donor	Place	Date
1.	Preparing for the visit of the quality team from the National Authority for Educational Quality Assurance and Accreditation	University Quality Assurance Center	Nahda University	January 2023
2.	Applying for program accreditation for higher education institutions			May 2023
3.	Description of programs and courses according to NARS 2018 standards			May 2023
4.	The Academic Reference Standards Matrix (ARS) with the National Academic Reference Standards (NARS):	Quality Assurance Unit	Faculty of Engineering, Nahda University	Jul 2026
5.	Program self-study workshop			Jun 2026
6.	Internal audit and institutional evaluation			October 2021
7.	Workshop on Electronic Management of the Education Quality System (Challenges and Visions).	Quality Platform	On line	August 2025
8.	Application Card on Energy Efficiency of Household Appliances	Ministry of Water & Electricity	SASO Building,	9 May. 2007

9.	Safety Requirements & Energy Saving in Luminaries & Lighting Systems	Saudi Lighting Co.	Riyadh, Kingdom of Saudi Arabia	5 Nov. 2007
10.	Equipment and Systems that are Used in Special Low & Medium Voltage Applications	Schneider Electric Co.		22 Sep. 2008
11.	Panorama for MV & LV Product	ABB Co. Riyadh, Kingdom of Saudi Arabia		7 March. 2010
12.	Activating the Role of the Saudi National Electro Technical Commission	SASO Building, Riyadh, Kingdom of Saudi Arabia		5 Dec. 2007
13.	The importance of Applying the Saudi Specifications Pluges and Models of electrical Appliances			5 – 6 Jan. 2010

APPRECIATION LETTER & CERTIFICATES

1. For his efforts to accredit the Faculty of Engineering from the Federation of Arab Engineers (the Arab Authority for Engineering and Technology Accreditation) From 2022 to 2026, 7/2023.
2. In recognition of his work as Head of the Department of Electrical and Renewable Energy Engineering During the period from 2018/2019 to 2022/2023, 7/2023
3. In recognition of his hard work as a director of the Quality Assurance Unit in the Faculty of Engineering, During the period from 2015/2016 to 2022/2023, 7/2023.
4. For his Outstanding participation to prepare Equivalency Files for the Bachelor of Engineering in the Electrical and Renewable Energy Engineering Program and the Mechatronics Engineering Program from the Supreme Council of Egyptian Universities From 2023 to 2027, 8/2023.
5. For the effort made in cooperation and coordination to support and develop the training course to achieve the maximum benefit for students from the Triple M group of companies for renewable energy, October 2022.
6. To work as a head of the Regulations Committee, of the Faculty of Engineering, Nahda University, 7/2022.
7. In recognition of his work as Head of the Department of Electrical and Renewable Energy Engineering During the period from 2018/2019 to 2020/2021, 7/2021
8. For his efforts in preparing of the Bylaws for the Undergraduate Studies 2019/2020 of the Faculty of Engineering, Nahda University, 5/2020.
9. In recognition of his hard work as a director of the Quality Assurance Unit in the Faculty of Engineering, During the period from 2015/2016 to 2018/2019, 7/2019.
10. For Outstanding Performance and Lasting Contributions During the First Semester of the Academic Year 2017-2018, Jan 2019.
11. In appreciation and appreciation for the honorable effort that was made to complete a project (Quad-Copter for Rabid Ambulance) in the 2016-2017 academic year from the Military Technical College in Egypt, July 2017.

12. For his Excellent Supervision and Efforts for Course Projects, Awarded this Jan 2017.
13. Electrical Engineer: Extinguish Performance & Developing of EHD works –26/7/2007.
14. Research of Electrical Engineering: Extinguish Performance & Developing of EHD works – 11/12/2007.
15. Ideal Employee (Engineer): Extinguish Performance & Developing of EHD works – 9/4/2008.
16. Research of Electrical Engineering: Extinguish Performance & Developing of EHD works – 1/2/2008.
17. Research Supervisor: Extinguish Performance & Developing of EHD works –5/7/2011.

Academic Decisions

1. Decision to appoint the Head of the Department of Electrical and Renewable Energy Engineering at the College for the academic year 2025-2026
2. Decision to appoint a coordinator for the Electrical and Renewable Energy Engineering program for the academic year 2025-2026. September 2025
3. College Council Decision to appoint the head of the committee that prepares the college's files for accreditation by the Kuwait Society of Engineers, February 2026
4. Decision to appoint two members to the college's academic regulations committee to prepare regulations for the Electrical Power and Renewable Energy Engineering program, September 2024.
5. The College Council's decision to assign the Chair of Chairman of the committee preparing the college's files for accreditation by the Union of Arab Engineers, July 2020
6. The College Council's decision to assign the Chair of Chairman of the committee preparing college files to increase the number of students from the Supreme Council of Egyptian Universities, July 2019
7. The College Council's decision to assign the Chair of the Electrical and Renewable Energy Engineering Department at the College starting from the first semester of 2018-2019.
8. The College Council's decision to assign the Chair of Chairman of the committee for preparing academic regulations at the college, September 2018
9. The university president's decision to form a measurement and evaluation committee for examinations and controls, April 2016
10. The College Council's decision to appoint the Director of the Quality Assurance Unit at the College starting from the first semester of 2016 – 2017, Sep 2016
11. Decision of the Dean of the College to chair the Department of Communications and Computer Engineering, June 2016
12. The College Council's decision to appoint the Deputy Director of the Quality Assurance Unit at the College starting from the first semester of 2015-2016, Sep 2016



السيرة الذاتية للدكتور: حسن محمد محمود مصطفى

Dr. Eng. HASSAN MOHAMMED MAHMOUD MOUSTAFA

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Adders: 30, El Nozha Street – 3rd Quarter –
Heliopolis – Cairo - Egypt

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Tel: +202 24192178 & +20223846290

E-mail: Hassan04_Egypt@yahoo.com

Personal Data

Name: HASSAN MOHAMMED MAHMOUD MOUSTAFA
Date of birth: 26 October 1959
Nationality: Egyptian
Marital status: Married
Sex: Male
Place Of Birth: Cairo, Egypt.

Academic Qualification

B.SC. (Electrical Engineering), Department of Electrical Engineering, Ain shams University, Egypt, **Very Good - June 1982.**
M.SC. (Electrical Engineering), Department of Electrical Engineering, Ain shams University, Egypt. The Research was entitled "Electrical Load Forecasting Using Different Methods Suitable to Egyptian Network", **January 1990.**
PH.D. (Electrical Engineering), Department of Electrical Engineering, El Minia University, Egypt. The Research is entitled "Optimal Planning Of Electric Transmission Systems", **September 1996.**

Employment Record

Oct. 2019 – Present

Lecturer at Faculty of Engineering, Al-Nahda University.

Oct. 1997 – Present

Lecturer at Faculty of Engineering, Shoubra - Banha University (Part time).

Oct. 1997 – Present

Lecturer at Faculty of Technology and Education – Capital University “Helwan” (Part time).

Sep. 2015 – Present

Member of the Board of Directors of South Delta Electricity Distribution Company, Egyptian Electricity Company - Ministry Of Electricity and Energy

Jan. 2008 – Oct. 2019

Managing Director of Systems and Information Technology, Communication & Decision Support, Egyptian Electricity Company, Egypt.

Managing Director of Systems and Information Technology, Communication & Decision Support, Egyptian Electricity Company, Egypt.

Feb.2004 – Dec. 2007

General Manager of Planning of Loads at Planning strategies Department, Egyptian Electricity Company, Egypt.

Jan.1999 – Feb.2004

Director at Electrical Network Studies & Research Department, Egyptian Electricity Company, Egypt.

Oct. 1994 - Dec.1998

Planner and Analyst Engineer at Electrical Network Studies & Research Department, Egyptian Electricity Company, Egypt.

July 1991-Sep.1994

Systems Analyst Engineer at Management Information System Department, Saudi Consolidated Electric Company in the Western Region (SCECO-West), Jeddah, Saudi Arabia.

June 1983-June 1991

Planner and Analyst Engineer at Electrical Network Studies & Research Department, Egyptian Electricity Company, Egypt.

Teaching Courses

A. In academic field:

- 1- **External Examiner** for final year students at the faculty of engineering – Ain Shams University, Zagazig University, Cairo University and Army Defense for fourth successive years (1996 - Present).
- 2- **Teaching Course** on “Load Forecasting” – (B.Sc. Course), Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for 2005/2006.
- 3- **Teaching Course** on “Computer Aided application in power systems and networks” – 3rd year Electrical Power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for 2005/2006.
- 4- **Teaching Courses** on “Load Forecasting” – (B.Sc. Course), Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt from 2006/2007 to 2010/2011.
- 5- **Teaching Course** on “HVDC” – (B.Sc. Course), Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for 2006/2007.
- 6- **Teaching Course** on “Electrical Power System Planning” – M.Sc. Course Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for 2009/2010.
- 7- **Teaching Course** on “Electrical Power System Planning” – M.Sc. Course Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for 2011/2012.
- 8- **Teaching Course** on “Energy Resources & Renewable Energy” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for Sep. 2019.
- 9- **Teaching Course** on “Electrical Power” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for Sep. 2019.

- 10- **Teaching Course** on “Electrical Power System Planning” – M.Sc. Course Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for Sep. 2019.
- 11- **Teaching Course** on “Energy Conversion” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for Feb2020.

A. In academic field (cont.):

- 12- **Teaching Course** on “Electrical Power” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for Feb2020.
- 13- **Teaching Course** on “Advanced Studies in Power System Planning (1)” – M.Sc. Course Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for Feb. 2020.
- 14- **Teaching Course** on “Advanced Studies in Power System Planning (2)” – P.hD. Course Electrical power at Faculty of engineering – Banha University – Shoubra, Cairo, Egypt for Feb. 2020.
- 15- **Teaching Course** on “Energy Conversion” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for October 2020.
- 16- **Teaching Course** on “Renewable Energy Systems and Economics” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for October 2020.
- 17- **Teaching Course** on “Energy Conversion” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for April 2021.
- 18- **Teaching Course** on “Renewable Energy Systems and Economics” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for April 2021.
- 19- **Teaching Course** on “Project Management for Electrical Engineering” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for April 2021.
- 20- **Teaching Course** on “Electrical Power” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for August 2021.
- 21- **Teaching Course** on “Electrical Machines” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for August 2021.
- 22- **Teaching Course** on “Energy Resources & Renewable Energy” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for October 2021.
- 23- **Teaching Course** on “Engineering Economics and Finance” – (B.Sc. Course), Electrical power at Faculty of engineering – Al-Nahda University, Egypt for October 2021.

B. In Industrial field:

- 1- **Teaching Courses** on “The Electron IBM Personal Computer - Power Flow, Short Circuit, and One Line Diagrams” - Egyptian Electricity Company, Cairo - Egypt (1987).
- 2- **Teaching Courses** on “PSS/E - Power System Simulator Package” - Egyptian Electricity Company, Cairo - Egypt (1990).

- 3- **Teaching Courses** on “Electromagnetic Transient Program (EMTP)” - Egyptian Electricity Company, Cairo - Egypt (1990).
- 4- **Teaching Courses** on “An Introduction to Computers” - Egyptian Electricity Company, Cairo - Egypt (May 1991).

B. In Industrial field (cont.):

- 5- **Teaching Courses** on “CADPAD - Computer Aided Distribution Planning and Design” - Saudi Consolidated Electric Company in the Western Region, Jeddah, Saudi Arabia (1992).
- 6- **Teaching Courses** on “PSS/E - Power System Simulator Package” - Saudi Consolidated Electric Company in the Western Region, Jeddah, Saudi Arabia (1993).
- 7- **Teaching Courses** on “Distribution System Operation” - Saudi Consolidated Electric Company In the Western Region, Jeddah, Saudi Arabia (1993).
- 8- **Teaching Courses** on “Load Forecasting” - Electric Power Systems Company (EPS) , Cairo, Egypt (1999).
- 9- **Teaching Courses** on “Planning of Electric Transmission Networks” - SYRIA Group at EEHC Center, Cairo, Egypt June (2000).
- 10- **Teaching Courses** on “Planning of Electric Transmission Networks” - SYRIA Group at EEHC Center, Cairo, Egypt July (2001).
- 11- **Teaching Courses** on “Planning of Electric Transmission Networks” – Saudi Group at EEHC Center, Cairo, Egypt June (2001).
- 12- **Teaching Courses** on “Engineering Science” – Saudi Group at EEHC Center, Cairo, Egypt June (2001).
- 13- **Teaching Courses** on “Load Forecasting” - Egyptian Electricity Company Group, GEF Center, Cairo - Egypt (2003) (seventh successive groups).
- 14- **Teaching Courses** on “Capability Curve for Generators & Optimal Load Flow Studies.” - Egyptian Electricity Company Group, GEF Center, Cairo - Egypt (2003) (seventh successive groups).
- 15- **Teaching Courses** on “Load Forecasting” – Sudanese Group at EEHC Center, Cairo, Egypt December (2004).
- 16- **Teaching Courses** on “Load Forecasting” - Sudanese Group at Cairo Distribution Company Center, Mokattam, Cairo, Egypt December (2004).
- 17- **Teaching Courses** on “Demand Side Management (DSM)” – Engineers Group at Egyptian Society of Engineers, Society of Electrical Engineers, Cairo-Egypt, June & August 2005.
- 18- **Teaching Courses** on “Load Forecasting” – Sudanese Group at EEHC Center, Cairo, Egypt November (2005).
- 19- **Teaching Courses** on “Power Quality (PQ)” – Engineers Group at Egyptian Society Of Engineers, Society of Electrical Engineers, Cairo-Egypt, April 2006.
- 20- **Teaching 17th Courses** on “Load Forecasting & System upgrade” – Engineers Group Saudi Company (2007 -2010)
- 21- **Teaching Courses** on “Electrical Demand Side Management” – Engineers Group Dubai Electricity & Water Authority. 16-18 October 2012.
- 22- **Teaching Courses** on “Electrical Demand Side Management” – Engineers Group Dubai Electricity & Water Authority. 13-18 September 2014.

- 23- **Teaching Courses** on “Electrical Demand Side Management” – Engineers Group Dubai Electricity & Water Authority. 15-17 March 2015.
- 24- **Teaching Three Courses** on “Load Strategic Data Analysis & Planning” – Engineers Group Saudi Company 2016.

Research experience

A. Publications

Dr. Hassan has more than 90 accepted paper in International & National prestigious conferences.

h-index on Google scholar is 7 (<https://scholar.google.com/eg/citations?user=--c6hQUAAAAAJ&hl=en>).

h-index on Scopus is 4 (<https://www.scopus.com/authid/detail.uri?authorId=57190847172>).

B. Supervisor

Dr. Hassan supervised on more than 70 MSC. & Ph.D. students.

C. External Examiner

Dr. Hassan as invited as an external examiner for more than 50 MSC. & P.hD. Thesis

Membership of prestigious committees

A. In academic field

- 1- Member of the Board of Directors of the Faculty of Industrial Education since 2012.
- 2- Member of the Electricity and Energy Research Council of the Academy of Scientific Research and Technology - Decision of the Ministry of Higher Education and the State of Scientific Research No. 99 of 2004 on 9/6/2004.
- 3- Member of the Division of Energy Systems Planning of the Academy of Scientific Research - Decision of the Ministry of Higher Education and the State of Scientific Research No. 99 of 2004 on 9/6/2004.
- 4- Corresponding member in the general a Egyptian Committee for CIGRE.
- 5- Member of the Association of Electrical Engineers of the Egyptian Society of Engineers

B. In Industrial field

- 1- Member of the Board of Directors of South Delta Electricity Distribution Company.
- 2- Member of the project to improve energy and reduce the emission of heat in the United Nations (UNDP).
- 3- Member and Rapporteur of the technical performance committee of the Egypt and France.
- 4- Member of the Committee for Nanotechnology in the Egyptian Electric Company.
- 5- Member of the Transformer Performance Committee of the National Committee of Egyptian Cired.
- 6- Chairman of the Information Coordination Committee between the Holding Company and the subsidiaries.
- 7- Electrical Consultant Engineer in Information systems (code; 1340/4), Egyptian Engineers Syndicate (2018-Present)
- 8- Member in the World Energy Committee (WEC).
- 9- Member of Working Groups of IEC in the committees:

- Group No. (65) For Industrial-process measurement and control (In Egypt).
- Group No. (93) For Design Automation (In Egypt).
- Group No. (113) for Nanotechnology for electro technical products and systems (In Egypt).
- Group No. (74) for Safety and Energy Efficiency of IT equipment (In Egypt).

B. In Industrial field (cont.)

- Group No. (27) for Industrial Electro Heating Equipment (In Egypt).
- Group No. (73) for Short Circuit Current (In Egypt).



السيرة الذاتية للدكتور: بیشوی عبده عزيز ايوب

CURRICULUM VITAE

Beshoy Abdou Aziz Ayoub

Lecturer, Benha Faculty of Engineering, Benha University

PERSONAL INFORMATION

Scientific Name: Beshoy Abdou Aziz Ayoub
ORCID: <https://orcid.org/my-orcid?orcid=0000-0002-9352-1731>
Web Site: <https://bu.edu.eg/staff/beshoyabdo5>
Official E-mail: beshoy.abdo@bhit.bu.edu.eg
Alternative E-mail: eng.beshoyabdou@gmail.com
Mobile: +20(2) 01227733385
Address: 76 El-Zahraa St., Ain-Shams, Cairo, Egypt
Marital Status: Married
Military Status: Completed



PERSONAL CHARACTERISTICS

- Ability to work within a team.
- Good communication skills.
- Quick learner.
- Leadership skills.

EDUCATIONAL QUALIFICATIONS

- **Ph.D. of Engineering Sciences in Electrical Engineering**, " Artificial Intelligence based Control and Energy Management Techniques for Microgrids ", Benha Faculty of Engineering, Benha University, August 2021.
- **M.Sc. of Engineering and Technology in Electrical Engineering Technology**, " The Power Quality of Doubly Fed Induction Generator Wind Turbines in Electrical Power System ", Benha Faculty of Engineering, Benha University, December 2015.
- **B.Sc. of Engineering and Technology in Electrical Engineering Technology**, Benha Faculty of Engineering, Benha University, June 2010.
Grade: Very Good with Honors (82.45%).
Graduation Project Grade: Excellent.

MEMBERSHIP OF PROFESSIONAL BODIES

- Member of Egyptian Syndicate of Engineers, 2011.
- A member of Computers and Electrical Engineering Elsevier journal reviewers' board since 2021.
- A member of IEEE Access and Serbian Journal of Electrical Engineering (SUEE) reviewers' board since 2022.

WORK EXPERIENCES

- **Quality Assurance and Accreditation Coordinator** at Electromechanical Engineering Program, Benha Faculty of Engineering, Benha University, November 2022 – Present. This program has been accredited by the Quality Assurance and Accreditation Authority for a period of five years.
- **Reviewer** of Computers and Electrical Engineering Elsevier journal, IEEE Access, and Serbian Journal of Electrical Engineering (SUEE), March 2022 – Present.
- **Faculty Super Admin** of the Electronic Learning Platform at Benha University Thinqi Academy, June 2022 – Present.
- **Lecturer** of Electrical Engineering, Department of Electrical Engineering, Benha Faculty of Engineering, Benha University, December 2021 – Present.
- **Lecturer Assistant** of Electrical Engineering, Department of Electrical Engineering, Benha Faculty of Engineering, Benha University, March 2016 – December 2021.
- **Demonstrator** of Electrical Engineering, Department of Electrical Engineering, Benha Faculty of Engineering, Benha University, March 2012 – March 2016.
- **Consulting Experience** (design, supervision, operation and maintenance for many projects) at the Workshops, Laboratories, and Consultancy Unit at the Faculty of Engineering, Benha University. Design of Fire Alarm System. Design of Lighting System. Design and Supervision of Electrical Distribution. Electrical Distribution Panel Control System.

TEACHING EXPERIENCES

I have experience in teaching the following subjects:

- **Electric Power Distribution Systems I**, Benha Faculty of Engineering.
- **Electric Power Distribution Systems II**, Benha Faculty of Engineering.
- **Low Current Distribution System**, Benha Faculty of Engineering.
- **Process Control and Building Management Systems**, Benha Faculty of Engineering.
- **New and Renewable Energy**, Benha Faculty of Engineering.
- **Renewable Energy**, Benha Faculty of Engineering.
- **Codes and Specifications of Electromechanical Systems**, Benha Faculty of Engineering.
- **Automatic Control**, Benha Faculty of Engineering.
- **Power Electronics I & II**, Benha Faculty of Engineering.
- **High Voltage Engineering**, Benha Faculty of Engineering.
- **Protection of Power System**, Benha Faculty of Engineering.
- **Power System Analysis**, Benha Faculty of Engineering.
- **Power System I & II**, Benha Faculty of Engineering.
- **Electrical Machines I & II**, Benha Faculty of Engineering.
- **Computer Fundamentals and Programming**, Benha Faculty of Engineering.
- **Maintenance workshop of Electrical Machines**, Benha Faculty of Engineering.
- **Electric Circuits I & II**, Benha Faculty of Engineering.
- **Electrical Application**, Benha Faculty of Engineering.
- **Microcontroller Embedded Systems**, Benha Faculty of Engineering.

- 1.** M. A. Ebrahim, **B. A. Aziz**, M. N. F. Nashed and F. A. M. Osman, “Optimal Design of Proportional-Resonant Controller and its Harmonic Compensators for Grid-Integrated Renewable Energy Sources based Three-Phase Voltage Source Inverters,” in *IET Generation, Transmission & Distribution*, vol. 15, no. 8, pp. 1371-1386, 2021, doi: [10.1049/gtd2.12108](https://doi.org/10.1049/gtd2.12108).
- 2.** M. A. Ebrahim, **B. A. Aziz**, F. A. Osman and M. N. F. Nashed, “Optimal Design of Controllers and Harmonic Compensators for Three-Level Cascaded Control in Stationary Reference Frame for Grid-Supporting Inverters-based AC Microgrid,” in *Energy Reports*, vol. 8, pp. 860-877, 2022, doi: [10.1016/j.egyr.2021.11.248](https://doi.org/10.1016/j.egyr.2021.11.248).
- 3.** M. A. Ebrahim, **B. A. A. Ayoub**, M. N. F. Nashed and F. A. M. Osman, “A Novel Hybrid-HHOPSO Algorithm Based Optimal Compensators of Four-Layer Cascaded Control for a New Structurally Modified AC Microgrid,” in *IEEE Access*, vol. 9, pp. 4008-4037, 2021, doi: [10.1109/ACCESS.2020.3047876](https://doi.org/10.1109/ACCESS.2020.3047876).
- 4.** M. A. Ebrahim, **B. A. Aziz**, F. A. Osman and M. N. F. Nashed, “Optimal PI Based Secondary Control for Autonomous Micro-Grid via Particle Swarm Optimization Technique,” *2018 Twentieth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2018, pp. 1148-1155, doi: [10.1109/MEPCON.2018.8635217](https://doi.org/10.1109/MEPCON.2018.8635217).
- 5.** M. A. Ebrahim, **B. A. Aziz**, A. S. Ragab and H. A. AbdelHadi, “Artificial Hummingbird Algorithm Based Optimal Secondary Control for Islanded Microgrid,” *2022 23rd International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2022, pp. 1-7, doi: [10.1109/MEPCON55441.2022.10021758](https://doi.org/10.1109/MEPCON55441.2022.10021758).
- 6.** **B. A. Aziz**, S. G. Ramdan and M. N. F. Nashed, “Improving Power Quality by Fed DFIG Converter with Various Switching Techniques,” *2017 Nineteenth International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2017, pp. 139-144, doi: [10.1109/MEPCON.2017.8301176](https://doi.org/10.1109/MEPCON.2017.8301176).
- 7.** F. Awad, **B. A. Aziz**, G. Amer and R. A. El-Sehiemy, “Integration of DG Units in Radial Distribution System Using Artificial Hummingbird Algorithm,” *2023 24th International Middle East Power System Conference (MEPCON)*, Mansoura, Egypt, 2023, pp. 1-6, doi: [10.1109/MEPCON58725.2023.10462380](https://doi.org/10.1109/MEPCON58725.2023.10462380).
- 8.** **B. A. Aziz**, S. G. Ramdan and M. N. F. Nashed, “Improvement FRT capability of DFIG wind energy based on three level converter,” *Int. J. Curr. Eng. Technol. INPRESSCO*, vol. 5, no. 4, pp. 2557-2563, 2015.
- 9.** M. A. Ebrahim, **B. A. Aziz**, A. S. Ragab and H. A. AbdelHadi, “Electric Eel foraging optimization based control design of islanded microgrid,” *Scientific Reports*, vol. 15, no. 1, Mar 2025, p. 8144, doi: <https://doi.org/10.1038/s41598-025-91006-y>.

LANGUAGE SKILLS

- **Arabic:** Native
- **English:** Fluent in reading and writing
Intermediate in speaking and listening

PROFESSIONAL TECHNIQUES AND AREA OF EXPERTISE

- Artificial Intelligence based techniques and their applications in new and renewable energy based Power Systems.
- Optimization techniques and their applications.

COMPUTER, IT AND STATISTICAL SKILLS

- Fundamentals of Digital Transformation Certificate (FDTC) (Mobile Applications, Fundamentals of Information Technology (IT) & Operating System, Word Processing, Presentations, Spreadsheets, Network, Fundamentals of Database).
- International computer driving license (ICDL) certification (Word, Access, Excel, PowerPoint, Internet, IT, using the computer and managing files).
- Skillful Statistical analysis using Excel.
- Engineering drawing using AutoCAD.
- Programmable Logic Controller (PLC) and its applications.
- Design of Medium voltage and Low voltage distribution networks using software packages.
- Programming Languages (C++, C, and Python).
- Power system operations, analysis and control using advanced software packages (ETAP, ATP, PSAT, PSCAD, PSS/E, Power World Simulator).
- Systems modeling and simulation using MATLAB software package.

ACTIVITIES IN THE QUALITY ASSURANCE AND ACCREDITATION

- **Quality Assurance and Accreditation Coordinator** at Electromechanical Engineering Program, Benha Faculty of Engineering, Benha University, November 2022 – Present.
- **A member of the implementation team of Quality assurance and accreditation project** at Electrical Power and Machines Program at Benha faculty of engineering, Benha University, Cairo, Egypt.
- Workshop on "Concepts of Quality assurance and accreditation", conducted by the National Authority for Quality Assurance and Accreditation Faculty of Engineering at Benha, Benha University, 2022, Cairo, Egypt.

- Workshop on "Specification of programs and courses according to NARS 2018", conducted by the National Authority for Quality Assurance and Accreditation Faculty of Engineering at Benha, Benha University, 2022, Cairo, Egypt.
- Workshop on "Procedures of accreditation by the National Authority of quality assurance and accreditation", Faculty of Engineering at Benha, Benha University, 2023, Cairo, Egypt.

CERTIFICATIONS OF SCIENTIFIC EXCELLENCE

- Three Benha University Prizes for Scientific Excellence and International Publishing in 2021 and 2022.
- One Benha University Prize for Scientific Excellence and Number of Citations in 2024.

AREAS OF RESEARCH

- Analysis and control of renewable energy based power systems and the relevant artificial intelligent based optimization methods applicable to the enhancement of the effectiveness of their controllers.
- Research effort is devoted to develop a more comprehensive approach to the modeling of power systems with renewable energy resources.
- Effort is devoted also to develop more comprehensive analysis approaches for studying renewable energy based interconnected power systems.
- Effort is devoted also to develop new cutting edge technologies in fuel cell and energy storage systems and their applications in Electric Vehicles and fast charging stations.
- Smart grid concept, analysis, operation, and control.
- Effort is devoted to develop a more comprehensive approach to the modeling of High Voltage Direct Current (HVDC) transmission systems in the presence of renewable energy resources.
- Transforming the actual courses from the conventional hard copy text form into the more elegant and perceptive soft form prescribed by the e-learning management form.

Ph. D/M.Sc. Supervision

- Performance Enhancement of Hybrid Microgrids Using Advanced Controllers, **Ph. D**, In Progress.
- Techno-economic operation of energy management systems with uncertain virtual power plants, **M.Sc.**, In Progress.
- Meta-Heuristic Algorithms based Optimal Fractional-Order PI Controllers for Islanded Microgrids, **M.Sc.**, In Progress.

TRAINING COURSES OF FACULTY AND LEADERSHIP DEVELOPMENT CENTER (FLDC)

- Training course on "Exams and Students Evaluation Systems", Benha University, 2020, Cairo, Egypt.
- Training course on "Managing Websites", Benha University, 2020, Cairo, Egypt.
- Training course on "Comprehensive Quality Management", Benha University, 2020, Cairo, Egypt.
- Training course on "Electronic-Tests and Question Banks", Benha University, 2020, Cairo, Egypt.
- Training course on "Self and External Evaluation", Benha University, 2020, Cairo, Egypt.
- Training course on "How to Apply and Write Innovative Student Projects Funded by the Project Management Unit of the Ministry of Higher Education", Benha University, 2022, Cairo, Egypt.

REFERENCES

- **Prof. Dr. Mahmoud Mohamed Ahmed Elbahy**

Professor of High Voltage Engineering, Benha Faculty of Engineering, Benha University.

Official E-mail: mmbahy@bhit.bu.edu.eg

Mobile: +20(2) 01003706442

- **Prof. Dr. Maged Naguib Fahmy Nashed**

Professor of Power Electronics, Department of Power Electronics and Energy Conversion, Electronics Research Institute.

Official E-mail: maged@eri.sci.eg

Mobile: +20(2) 01222217046

- **Prof. Dr. Mohamed Ahmed Ebrahim Mohamed**

Professor of Electrical Engineering, Faculty of Engineering at Shoubra, Benha University.

Official E-mail: mohamed.mohamed@feng.bu.edu.eg

Mobile: +20(2) 01208422220



السيرة الذاتية للدكتورة: دعاء احمد جاد الكريم عبد الجواد

Personal Information

Name: Doaa Ahmed Gad El Kareem Abd El Gawad

Birth Date: 20 October 1991

Gender: Female

Social State: Married.

Nationality: Egyptian.

Address: Fayoum- Egypt

Mobile: 01006122192

E-mail: doaaahmedgad@gmail.com

doaa.gad@fief.edu.eg



Academic Qualifications

2021-2024	Ph.D. in Electrical Engineering Department, Faculty of Engineering, Minia university. Thesis Title” Optimal Design of a Hybrid Power Generation System for Rural Areas”
2019-2021	M.Sc. in Electrical Engineering Department, Faculty of Engineering, Fayoum University. Thesis Title “Optimization of Wind Cube Design for wind turbine”
2017-2019	Master of Engineering in Electrical Engineering Department, Faculty of Engineering, Fayoum University.
2009-2014	B.SC, Electrical Engineering Department, Faculty of Engineering, Fayoum University
Accumulative grade	very good
Graduation project	Automation Smart Hotel (Restaurant-Garage-Car Washing-Elevator-Home Room Control) by using Control "using PLC (Siemens) & SCADA & HMI programs.
Project grade	Excellent

Academic Qualifications

2105-2017	Teaching Assistant at 6 October University
2017-2019	Teaching Assistant at Pyramids Higher Institute For Engineering and Technology (P H I)
2019-2024	Teaching Assistant at Future High Institute of Engineering in Fayoum (FIEF)
2025-present	Lecturer at Future High Institute of Engineering in Fayoum (FIEF)- Electrical Engineering

Publications

- A. Y. Hassan, A. M. Soliman, **D. Ahmed**, & S. M. Saleh, Wind cube optimum design for wind turbine using meta-heuristic algorithms. Alexandria Engineering Journal, 61(6), 4911-4929 (2022).
- M. Said, **D. Ahmed**, S. M. Saleh, A. Y. Hassan, Extraction of Optimal Solution of Hybrid Energy System Using Graphic User Interface. International Journal of Scientific Research and Engineering Development, 3(6), 2581 – 7175 (2020).
- M. Said, **D. A. Gad**, A. M. El-Rifaie, A. A.M. El Gaafary, A. A. Elbaset, M. Morad, Performance of RIME Algorithm for Optimal Sizing of Design Hybrid Wind Turbine Photovoltaic-Battery System. J. Electrical Systems, 20(3) (2024) 4284-4297, the journal has an impact factor of 6.7, cite score 1.1.
- **D. A. Gad**, M. Morad, A.A.M. El-Gaafary, A.A. ELbaset, M. Said, Analysis of zebra optimization method for sizing optimum design of wind turbine-photovoltaic-fuel cell HRES. International Journal for Holistic Research, (2024).

Certification

- التخطيط الاستراتيجي
- الدراسة الذاتية لمؤسسات التعليم العالي
- Endnote
- Statistical Analysis Using SPSS
- Ethics of scientific research and writing scientific research.
- Examination systems and student evaluation course
- Training in EMISAL
- Training in Cremate station
- Training in Middle Egypt Electricity Distribution
- Training Invensys Company "DCS & Triconix"
- Training in demo station
- ICDL: International Computer Driving License

Languages

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ TOFFEL certificate (with total grade 670) ▪ TOFFEL certificate (with total grade 523) ▪ Arabic: “Mother Tongue”. ▪ English Language:
Spoken, Written, Reading, Listening: very good | <p>Ain shams university (2024)</p> <p>Fayoum university (2020)</p> |
|--|--|

Teaching Courses

- Digital Control
- Analog Control
- Electric Circuit
- Advanced Electric Circuit
- Computer Application in Electrical Engineering
- Power System Analysis
- Photovoltaic System
- Electrical Machines
- Industrial Control
- Renewable Energy
- Special Machines
- Classic control and PLC
- Measurements and Electrical Testing 1
- Power Electronics
- Computer and programming

Technical Skills

- Work in course file and National Authority for Quality Assurance and Accreditation Standards
- Work in STDF Projects
- Programing with python and C++
- Professional in MATLAB Program
- Professional in Photoshop
- Professional in PSpice
- Professional in SCADA and HMI
- Professional in Microsoft Office

Personal Skills

- Have leadership skills with friendly manner.
- Strong decision-making skills
- Welling to learn.
- High communication skills.
- Ability to multi-task, be flexible, diplomatic, and open-minded.
- Strong problem-solving and analytical skills
- Project management skills
- High research capability.
- Ability to work under pressure.
- Open-minded to new ideas and new technologies.
- Self-learning ability



السير الذاتية لأعضاء الهيئة المعاونة



السيرة الذاتية للمدرس المساعد: لبنى محمود محمد

Curriculum Vitae

Name: Lubna Mahmoud Mohammed.

- **Gender: Female.**
- **Address: Giza**
- **Mobile: 01552359156.**

Email: lubnaahmedessa@gmail.com

NATIONALITY

Egyptian

LANGUAGES

Arabic mother tongue & English

EDUCATION AND PROFESSIONAL QUALIFICATIONS

- Ph.D student , Electrical Engineering in Assuit University.
- Master of Electrical Engineering (Power and Machines section): Assuit University
July 2019.
- M. Sc. thesis title is " **Multi-objective PSO- based Optimal Placement and Sizing for Distributed Generation Resources in Distribution Networks**", under supervision Prof. Mazen. Abdel- Salam and Prof. Mohamed Th. Elmohandes.
- Submitted a paper with title “Harmonic Analysis Comparison between PV Integration in High Voltage and Medium Voltage Networks” AJER Journal, vol.10, no.1, pp. 263-276.
- Submitted a paper with title ”A PSO – based Multi-objective Optimization Method for Optimal Weight Factors, Placement and Sizing of Multiple DG Units in a Distribution System “,, which will be presented at MEPCON, Middle East Power Systems Conference in Dec. 2019, Cairo, Egypt.
- Presented a paper with title "A PSO-based Multi-objective Optimization Method for Placement and Sizing of DG Units in a Distribution System with Different Load" at the Second International Conference on Natural Resources and Renewable Energy (ICNRE II), April.2018, Hurghada, Egypt.

- Bachelor of Electrical Engineering (Power and Machines section) in July 2014 from Assiut University. Grade of Graduation, Project grade: excellent.
- Member of the Egyptian Syndicate of Engineers.

Work Experience:

- Working as assistant lecture from 2019 until now in the faculty of Engineering- Nahda university.

Courses and Training

- Attended a distribution course in July 2013 (Electrical calculations for power and lighting coordinated and completed all power distribution) drafting with AutoCAD and dialux.
- Computer skills: IT user competent with word, excel, PowerPoint, Programming Language like matlab, c++.
- Attended a training period at Upper Egypt Electricity Production Company in Assuit for learning protection operation for internal and external faults and developing standard techniques for power system operation.
- Trained for one month in middle Egypt electricity distribution Company in Assuit.
- Attended control course 2014 including PLC & SCADA Automation



السيرة الذاتية للمدرس المساعد: ليلى اسامة عبداللطيف

laila Osama

Lecturer assistant



Cairo



01.10.1994



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laila.osama@nub.edu.eg



EDUCATION

01.2022 - 05.2025	Faculty of engineering, Fayum university master's degree in electrical engineering- Combined Yaw Control with both Maximum Power Point Tracking and Pitching control Based on Fractional Calculus for a Variable Speed Wind Turbine Driving Permanent Magnet Synchronous Generator.
09.2012 - 06.2017	Faculty of engineering, Minya university Power and electric machinery department

EXPERIENCE

05.2025 - present	Nahda University - faculty of Engineering assistant lecturer
11.2019 - 05.2025	Nahda University - faculty of Engineering Teaching assistant

SUBJECTS

- ✓ Electrical Machines
- ✓ Automatic Control
- ✓ PLC & SCADA system
- ✓ Modelling and Simulation
- ✓ Power Electronics
- ✓ Electrical Power systems
- ✓ Wind Energy
- ✓ Solar Energy
- ✓ Energy conversion
- ✓ Energy Recourses

LANGUAGES

English



SOFTWARE SKILLS

Microsoft Office	● ● ● ● ● ●
TIA Portal (ladder diagram)	● ● ● ● ● ●
Matlab	● ● ● ● ● ●
Autodesk AutoCAD	● ● ● ● ● ●
Dailux	● ● ● ● ● ●
Protous (circuits design and simulation	● ● ● ● ● ●
Zelio	● ● ● ● ● ●
EKTS	● ● ● ● ● ●
HOMMAR	● ● ● ● ● ●
System advisor model(SAM)	● ● ● ● ● ●

PUBLICATION

Journal :Journal of Electrical systems
Paper title: Meta-heuristic Optimization for Wind Turbine Control: Evaluating Performance with PI and Fractional PI Controllers for Maximum Power Extraction



السيرة الذاتية للمعيدة: هناء سعيد قرنى على

Hanaa Saeed Qurani Ali

Fayoum University

Mobile: 01282180249

Email: hsaeed88888@gmail.com

Linkedin: <https://www.linkedin.com/in/hanaa-saeed-qurani-943071203>

Summary:

I am distinguished by being a good learner. I am always striving for self –development and gaining new experiences in electrical Engineering, especially in Renewable energy, Distribution, and automation system.

Education:

- Currently I am in pre-master in engineering sciences (mar2023-now)
- Faculty of Engineering – Fayoum university (sept 2017 – May 2022)

Major: Department of Machine and Electrical Power.

Grade: Excellent (87.1%)

Graduation Project: Design of electrical Distribution system for Hospital and Bank. The project contain:

- Electrical distribution and light current systems.
- Use PV system to feed the Bank.
- Use KNX system to control the lighting of the Bank.

Grade: Excellent (98%)

Professional Appointments:

- **October 2022-now, Teaching assistant at Nahda University.**
 - The ability to explain and receive ideas.
 - The ability to engage students in tutorial sessions.
 - Strong organizational and time management skills.
 - The ability to deal with large volumes of paperwork.
 - Competence in e- skills.learning
 - Desire to perform accurate and ethical research to achieve results for the study
 - **September 2022- October 2022, Technical Office Engineer at Dar El-kahrabaa company.**
-

Trainings:

- **July 2022 –September 2022, Trainee and Coordinator at Dar El-Kahrabaa Round 16.**
 - **Location:** Offline
 - **Training about three tracks.**
 - Design for lighting, power, light current and earthing protection.
 - Shop drawing for lighting, power and light current.
 - Tendering.
- **July 2021 – Oct 2021, Dar El-Kahrabaa.**
 - **Location:** Nasser city
 - I learned many tracks such as design, shop drawing and Tendering.
 - I applied to (residential, administrative and hospital building).
 - I did an individual project for a floor of hospital (design, Shop drawing and Tendering) in 10 days.
 - I did a collective project for a post office building (Shop drawing and Tendering).

- **July 2021 For two weeks Trainee, Schneider Electric University.**
 - **Location:** online
 - Attended an interactive training Provided by the engineers of the company covering the following points:
 - Earthing Protection.
 - Circuit Breakers.
 - Smart Grid.
 - Harmonics and Power Factor Correction.
 - KNX.
 - Motor Starting.
 - MV Switchgears.
- **April 2021 – May 2021, AL AZHAR University .**
 - **Location:** online
 - Training about Distribution and PLC.
- **July 2020 – Sep2020, The AL-Kuraimat Power Plant**
 - **Location:** Bani Suef.
 - Learning about the stages of electricity production in the steam and gas power plant.

Extracurricular Activities:

- **Dec 2021 -Apr 2022, Research & Development team in Dar El-Kahrabaa**
 - **Achievements:**
 - I have learned technical writing and scientific research.
- **July 2021 –Oct2021, HR member –PAMF Team.**
- **Sep 2020 –June 2021, Member of the Engineering College student union.**
- **Feb 2019 –May 2019, Member at Human Building Academy**
 - **Achievements:**
 - I attended A lot of sessions about Human Development.

Skills:

- **Computer Skills:**
 - Microsoft office
 - AUTOCAD
 - DIALUX & DIALUX EVO
 - ETAP
 - MATLAB
 - TIA Portal
- **Soft Skills:**
 - Flexible
 - Good planning
 - Team Work Skills
 - Ability to learn

Languages:

- **Arabic:** Mother Language.
- **English:** Very good (writing and speaking).

Personal Information

- **Date of birth:** 27th June1999.
 - **Military Status:** xxx.
- **References and Documents are available upon request.**



السيرة الذاتية للمعيدة: آية سميح عيسى عبيد



My objective is to acquire a challenging position in a company which has a motivating work environment so that I can apply my knowledge and skills and gain experience.

PERSONAL INFORMATION:

Name:

Aya Sameeh Eisaa Eibaed

Date of birth: 21\01\1999

Address: Beni Sueif, Egypt

Marital status: Single

Religion: Muslim

Nationality: Egyptian

CONTACTS:

Mobile: [01027273856](tel:01027273856)

E-mail:

ase21199@gmail.com

PERSONAL SKILLS:

- Communication skills.
- Leadership skills.
- Time Management.
- Self-confidence.
- Team Work player.
- Very quick learner.
- Working under pressure.

EDUCATIONAL QUALIFICATION:

“Bachelor. Faculty of Engineering”

- Electrical & Renewable Energy Department

Al-Nahda university (NUB), 2023

- GBA: 3.81(92.97 Excellent with honors grade)

- Graduation project: PV Sky Brush (Drone for cleaning the photovoltaic cells)

- Graduation project degree: Excellent(97)

EXPERIENCES:

Work Experience:

Teaching Assistant at Nahda University

Trainings:

- Egyptian Electricity Production Company.

EI-Kuraimat Power Plant (Sep 2022 - Oct 2022)

- Triple M construction company (WINSOLA)
(Sep 2021-Oct 2021)

- New and Renewable Energy Authority (NREA)
(Aug 2021-Sep 2021)

- Middle Egypt Electricity Distribution Company.
Beni-Suef (Aug 2021)

LANGUAGE SKILLS :

* Arabic: Mother tongue

* English: very good

COMPUTER SKILLS:

- Very good Knowledge in Microsoft Office

- Aptech English Learning, Aptech Company

- Electrical Distribution, Nahda University

- Plc and Scada System, Nahda University

- Aptech Computer Skills, Aptech Company

- Zelio

- AutoCAD

- Dailux evo

- Cade Simulator

- Sam

- Pv Sys

- Microc Pro For Pic

- Picsimlab

- Matlab

- Sketchup

-hommer pro

-EKTS



السيرة الذاتية للمعيد:

محمد نبيل ماهر

Mohamed Nabil Maher

ELECTRICAL ENGINEER

☎ 01008617043

✉ mhmdbebo188@gmail.com

📍 Beni Suef City - Egypt

EDUCATION

Bachelor of Electrical
Engineering and
Renewable Energy

Nahda University
2019 - 2024

SKILLS

SOLIDWORK

AUTOCAD

DIALUX Evo

CAD-E

EKTS

ZELIO

MICROSOFT OFFICE

LANGUAGE

Arabic

English

GRADUATION PROJECT

Solar Power Electric Bike

Grade: A (98)

GPA

3.71 at percentage 91.13%

COURSES AND TRAINING

● 21/8/2021 to 21/9/2021

**Egyptian French Company for Food
Industrial**

Training at maintenance department at Egyptian French company

● 26/7/2021 to 16/8/2021

**Middle Egypt Electricity Distribution
Company**

Training course in the field of electrical distribution

● 1/9/2022 to 1/10/2023

Upper Egypt Electricity Production

Electric generation Power station

● 5/2/2022 to 13/2/2022

Hydro Plants Generation Company

Hydro plants generation company training centre in Aswan



السيرة الذاتية للمعيدة:

ألاء ايمن سيد

ALAA AYMAN SAYED

Electrical Design, Light Current & Technical Office Engineer.

Teaching Assistant – Faculty of Engineering.

Beni Seuf | +201289771702 | alaa.aymansayed025@gmail.com

PROFESSIONAL SUMMARY

Electrical Design, Light Current & Technical Office Engineer with hands-on experience in low voltage systems, lighting design, shop drawings, and tender documentation through professional training and course-based projects. Currently working as a Teaching Assistant at the Faculty of Engineering, combining strong academic background with practical engineering skills. Capable of delivering accurate and well-organized freelance engineering services remotely.

ACADEMIC EXPERIENCE

Teaching Assistant – Faculty of Engineering

Oct 2025 – Present

- Assisting in teaching electrical engineering courses and laboratory sessions.
 - Supporting students in understanding electrical systems, power distribution, and design concepts.
 - Preparing academic materials and supervising practical training.
 - Developing strong technical communication, presentation, and explanation skills.
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EDUCATION

Bachelor's Degree in Electrical and Renewable Energy Engineering.

Faculty of Engineering – Nahda University.

2020 – 2025

- GPA: 3.06 (Very Good)
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PROJECTS & TECHNICAL TRAINING EXPERIENCE

Electrical Design Projects (Course-Based & Training Projects)

- Lighting and power layouts for residential, administrative, medical, and commercial buildings
- Load calculations and panel schedules
- Lighting calculations using Dialux EVO
- Light current system design
- Preparation of shop drawings and single line diagrams
- BOQ preparation and quantity take-off for tender documents

Graduation Project: Production line system

Grade: A+ (98)

- Design of production line system used for sorting object according to their size and color using PLC and the project was supported with a simulation to clarify the concept clearly.
-

PRACTICAL TRAINING

Electrical Design Trainee – DAR ELKAHRABA for Electrical Supply & Contracting

Jul 2025 – Sep 2025

- Electrical design tasks for different building types
- Lighting and power layouts using AutoCAD
- Shop drawings and tender documentation

Trainee – Network Training Center, South Cairo – Helwan

Sep 2024

- Power generation from steam, combined cycle, and renewable energy stations (PV, wind, hydrogen)

Trainee – Triple M Construction (REEF Renewable Energy Eco Farm Program)

Jun 2023

- Introduction to renewable energy applications and site practices

Trainee – Upper Egypt Electricity Production Company

Sep 2023

- Exposure to power generation systems and plant operations

Trainee – Middle Egypt Electricity Distribution Company

Sep 2022

- Overview of electrical distribution systems and transformers
-

TECHNICAL SKILLS

- AutoCAD (Lighting & Power Layouts)
 - Dialux EVO (Lighting Calculations)
 - Revit (Basic Modeling)
 - ETAP (Power Systems Analysis)
 - Homer Pro & SAM (Renewable Energy Systems)
 - MATLAB & Proteus
 - Microsoft Office (Word, Excel, PowerPoint)
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SOFT SKILLS

- Technical Communication & Presentation
 - Time Management (Academic & Freelance Work Balance)
 - Problem Solving & Analytical Thinking
 - Team Coordination & Leadership
-

LANGUAGES

- Arabic: Native
 - English: Very Good
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