Curriculum Vitae

Professor Dr. Ebrahim A. Badran

Personal Data

Name Ebrahim Abdel-Ghaffar Mohammed Mohammed Badran

Date of Birth January 10, 1969

Marital status Married + More than One Children

Nationality Egyptian

Address P.O. Box No. 7, Algebaz Post Office,

New Damietta, Damietta, Egypt

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Languages

Arabic Mother tongue

English Advanced (Read, Write, Speak & Understand)

Education

2004 Ph. D. in Electrical Engineering

Mansoura University, Egypt, September 2004.

"Modeling of Fast Acting Static Var Compensators in EHV Systems", using PSCAD.

1995 M. Sc. in Electrical Engineering

Mansoura University, Egypt, September 1995.

"Computation of Electromagnetic Transients In Power Transformers", using EMTP.

1991 B. Sc. in Electrical Engineering

Mansoura University, Egypt, VERY GOOD, July 1991.

"Computer Aided Analysis Of Power Systems Under Transient Stability Conditions".

Scientific Name

O Google Scholar: Ebrahim A. Badran - Citations: 387 h-index: 13 i10-index: 17

Research Gate : Ebrahim A. Badran - RG Score : 19.0
 ORCID : https://orcid.org/0000-0003-3719-3398

O Web of Science : R-2778-2018

Present Position

- O Professor at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt, from 24 Nov., 2018.
- O Director of Quality Assurance Unit, Faculty of Engineering Mansoura University, Egypt, from 26 February 2014. Accredited at 19 Jan. 2016 and 11 programs are accredited in 2022.
- O External Auditor with Quality Assurance Center, Mansoura University, Egypt, (MUQAC), from April 2014.
- **External Auditor** with National Authority for Quality Assurance and Accreditation of Education, (NAQAAE), Egypt, from April 2017.
- O External Evaluator with (MENPP-PMU), Egypt, from April 2019

Research Interest

- ♦ Transient Analysis of Power Systems
- ♦ Power System Protection
- ♦ FACTS & DG Modeling and Applications
- Reactive Power Control
- Power System Modeling and Analysis
- ♦ Power Quality
- App. of AI in Power Systems

Relevant Experience

Total experience is in the following fields:

- Quality Assurance of High Education Institutes
- Management of Technical Education and Training Centers
- HV/MV/LV Electrical Networks Design and Simulation
- Operation of Electrical power generation and GIS Substations

Page 2 of 28

Professional Activities

- Member of the Institute of Electrical & Electronics Engineers (IEEE), since 1993 till date.
- Member of the European EMTP-ATP Users Group (**EEUG**), since 2000 till date.
- Member of The Egyptian Electrical Engineering Society (EEES), from 1997 till date.
- Review more than 500 articles for the following journals and conferences:

Journals

- o IEEE Transactions on Power Delivery
- IEEE Access
- o IEEE Transactions on Circuits and Systems
- o IEEE Open Access Journal of Power and Energy
- o IET Power Generation, Transmission, and Distribution
- o IET Electrical Power Application
- IET Renewable Power Generation
- IET Power Electronics
- IET Smart Grid
- IET Science, Measurement & Technology
- IET Control Theory & Applications
- IET Journal of Engineering
- o IET Electronic Letters
- o European Transactions on Electrical Power
- o International Transactions on Electrical Energy Systems, Weily
- Wind Energy Journal; Weily
- Electric Power System Research, Elsevier
- Scientific Reports Journal; Elsevier
- o Journal Electrical Engineering (ELEN), Springer
- o Ain-Shams Engineering Journal, Elsevier
- o International journal of Ambient Energy (TAEN), Taylor & Francis
- o Energy Engineering
- Artificial Intelligence Research
- Smart Science
- Circuit World

- Frontiers
- o The Journal of Engineering, Hindawi
- o Advances in Science, Technology and Engineering Systems Journal, (ASTEST)
- Advance in Electrical and Electronic Engineering
- o Mansoura Engineering Journal, BFEMU
- o Port Said Engineering Research Journal
- PLOS One

Conferences

- IEEE PES/IAS Power Africa Conferences; PAC, 2017-2022
- o Middle East Power Systems Conferences (MEPCON), 2014-2023
- o International Power System Transients Conference (IPST) 2016-2021
- o Power System Computation Conference (PSCC), 2022
- o The 2020 IEEE Texas Power and Energy Conference (TPEC 2020-2021)
- o 8th IEEE India International Conference on Power Electronics
- 6th IEEE International Energy Conference
- o MEIE Conference
- o Electric Power and Renewable Energy Conference 2020 (EPREC-2020), Jamshedpur, India.
- o IEEE International Autumn Meeting on Power, Electronics and Computing, ROPEC 2019, 2020
- o International Conference on Electrical and Computer Engineering, ICECE 2013
- AFRICON 2023

Prices

- O WoS Top reviewers in Cross-Field September 2019
- **O** WoS Top reviewers in Engineering September 2019
- O International Transactions on Electrical Energy Systems, Weily, 2016-2022 (Certificates)
- O Electrical Power System Research, 2019-2022 (Certificates)
- **O** Poter 2018

Quality Assurance Auditing

1- Auditing with NAQAAE

(National Authority for Quality Assurance and Accreditation of Education)

- 1- **Elmadina Higher Institute for Engineering and Technology,** Ministry of High Education, Shobramant, Giza, Egypt, 2-4th May, 2017 (Member)
- 2- Faculty of Engineering, Portsaid University, 10-12th April 2018 (Member).
- 3- Faculty of High Education for Advanced Technology, Den-Sweef University, 6-8th May 2018 (Member).
- 4- **15th May Higher Institute for Engineering and Technology,** Ministry of High Education, 15th May, Giza, Egypt, 21-23th May, 2018 (Member).
- 5- Faculty of Engineering and Technology, Future University, 8-10th Dec. 2019 (Member).
- 6- **Institute of Aviation Engineering and Technology,** Ministry of High Education, Embaba, Giza, Egypt, 16-18th February, 2020 (Member).
- 7- Electrical Power & Machines Engineering Program, Faculty of Engineering, Ain-Shams University, Cairo, Egypt, April 2020 (Member).
- 8- Electrical Power & Machines Engineering Program, Faculty of Engineering, Alexandria University, Alexandria, Egypt, April 2021 (Member).
- 9- Mechanical Engineering Program (Mechatronics), Nile University, Cairo, Egypt, March 2022 (Member).
- 10- Electrical Power & Machines Engineering Program, Faculty of Engineering, Ain-Shams University, Cairo, Egypt, April 2022 (Chairman).
- 11- Electrical Power & Machines Engineering Program, Faculty of Engineering, Azhar University, Cairo, Egypt, May 2022 (Chairman).
- 12- Production Engineering & Cars' Engineering Programs Faculty of Engineering, Ain-Shams University, Cairo, Egypt, Dec. 2022 (Chairman).
- 13- Electrical Power & Machines Engineering Program, Faculty of Engineering, Zakazek University, Cairo, Egypt, May 2023 (Chairman).

2- Auditing with PMU

(Project Management Unit - Ministry of High Education)

- 1- Electrical Power & Machines Engineering Program, Faculty of Engineering in Shobra, Benha University, Shobra, Cairo, Egypt, April 2019.
- 2- **Renewable Power Energy Program,** Faculty of Engineering, Tanta University, Tanta, Egypt, 14th Dec. 2020.

Page 5 of 28

3- Auditing with MUOAC

(Mansoura University Quality Assurance Center)

- 1- **Faculty of Commerce,** Mansoura University, 29-30th April, 2014. (Member)
- 2- **Faculty of Commerce,** Mansoura University, 30-31st April, 2016. (Chairman)
- 3- **Faculty of Sports Education**, Mansoura University, 6-7th April, 2016. (Member)
- 4- **Faculty of Education,** Mansoura University, 6th December, 2016. (Member)
- 5- **Faculty of Veterinary Medicine,** Mansoura University, 6th -7th Aug., 2018. (Member)
- 6- **Faculty of Science,** Mansoura University, 10th Sept., 2018. (Chairman)
- 7- **Faculty of Arts** Mansoura University, 12th Sept., 2018. (Chairman)
- 8- Faculty of Veterinary Medicine, Mansoura University, 5^h -7th Dec., 2018. (Member)
- 9- Faculty of Veterinary Medicine, Mansoura University, 30^h -31th March, 2020. (Member)
- 10- Faculty of Agriculture, Mansoura University, 15th -16th Dec. 2020. (Member)
- 11- Faculty of Low, Mansoura University, 28th Nov. 2021. (Member)
- 12- Faculty of Computers & Information, Mansoura University, 31st Jan. 2022. (Chairman)
- 13- Mansoura-Manchester Program, Faculty of Midicine, Mansoura University, 2nd March. 2022. (Member)
- 14- Mansoura University Accreditation, Mansoura University, May 2022. (Member)
- 15- **GPS Program, Faculty of Arts, Mansoura University**, 25th July 2022. (Member)
- 16- Mathematics Program, Faculty of Education, Mansoura University, 20th September 2022. (Chairman)
- 17- Faculty of Sport Education, Mansoura University, 20th February 2023. (Chairman)

4- Special Report as External Consultant Auditing

- 1- Electronic and Communications Engineering, Post-Graduate, Faculty of Engineering, Port-Said University, July 2020.
- 2- Computer and Control Engineering, Post-Graduate, Faculty of Engineering, Port-Said University, July 2020.
- 3- Electrical Power & Machines Engineering Program, Faculty of Engineering and Technology, Future University, Cairo, Egypt, Sept. 2021.
- 4- Electrical Power & Machines Engineering Program, Faculty of Engineering in Shebeen-Elkom, Minofia University, Shebeen-Elkom, Egypt, Nov. 2021.
- 5- Electronic and Communications Engineering Program, CIC, Cairo, Feb. 2022.
- 6- Electrical Power & Machines Engineering Program, Faculty of Engineering in Shobra, Banha University, Cairo, Egypt, March 2022.
- 7- Electronic and Communications Engineering Program, Kafr-Elsheesk HIET, Kafr-Elsheesk, July 2022.
- 8- Computer Engineering Program, Kafr-Elsheesk HIET, Kafr-Elsheesk, July 2022.
- 9- Electronic and Communications Engineering Program, Delta HIET, Talkha, Dec. 2022.
- 10- Industrial Automation Engineering Program, Faculty of Electronics at Menouf, Menouf, Jan. 2023.

Page 6 of 28

- 11- Industrial Electronics and Control Engineering Program, Faculty of Electronics at Menouf, Menouf, Jan. 2023.
- 12- Electrical Power & Machines Engineering Program, Faculty of Engineering, Farous University, Alexandria, Egypt, March 2023.
- 13- Mechatronics Engineering Program, Mahalla HIET, Mahalla, Elgharbia, Egypt, May 2023.

4- Consultant Auditing

- 1- New Damietta Higher Institute for Engineering and Technology, Ministry of High Education, New Damietta, Egypt, July 2016 till Oct. 2018.
- 2- **Delta Higher Institute for Engineering and Technology,** Ministry of High Education, Talkha, Eldakahlia, Egypt, Aug. 2017 till July 2018.
- 3- **Nile Higher Institute for Engineering and Technology,** Ministry of High Education, Masoura, Eldakahlia, Egypt, Aug. 2018 till Jan 2020.
- 4- **Mahalla Higher Institute for Engineering and Technology,** Ministry of High Education, Mahalla, Elgharbia, Egypt, Sept. 2018 till May 2019.
- 5- Electrical Power & Machines Engineering Program, Faculty of Engineering, Alazhar University, Cairo, Egypt, Nov. 2019.
- 6- Electrical Power & Machines Engineering Program, Higher Institute for Engineering, Alshorouk Academy, Alshorouk, Egypt, Jan. 2021 till May 2022.
- 7- Faculty of Commerce, Mansoura University, Egypt, Jan. 2022.
- 8- Faculty of Engineering, Damietta University, Egypt, July 2022.
- 9- Electronic and Communications Engineering Program, Delta HIET, Talkha, Dec. 2022.
- 10- Elareesh Higher Institute for Engineering and Technology, Ministry of High Education, Elareesh, North Sainai, Egypt, Jan. 2023 till now.
- 11- **Mahalla Higher Institute for Engineering and Technology,** Ministry of High Education, Mahalla, Elgharbia, Egypt, Jan. 2023 till now.
- 12- **Kafrelshekh Higher Institute for Engineering and Technology**, Ministry of High Education, Kafrelshekh, Egypt, July 2023 till now.

Publications

1- Journal Papers

- 1. **Ebrahim A. Badran** and Mansour H. Abdel-Rahman, "A Power Quality Detection Method for Grid-Connected Wind Farms", International Journal of Power Engineering & Green Technology, Vol. 1, No. 2, December 2010, pp. 65-72.
- 2. **Ebrahim A. Badran**, Mohammad E. Rizk, and Mansour H. Abdel-Rahman, "Investigation of Submarine Cable Parameters Impact on Energization Transients in Offshore Wind Farms", International Journal of Power Engineering & Green Technology, Vol. 1, No. 2, December 2010, pp. 73-82.
- 3. **Ebrahim A. Badran** and S. Abulanwar, "Dynamic Performance Comparison between STATCOM and SVC", Mansoura Engineering Journal, March 2011, pp. E11-E17.
- 4. **Ebrahim A. Badran**, Elsaeed Abdallah, and Kamal M. Shebl, "An Accurate Approach for Detecting and Classifying the HIF in Distribution Systems", Mansoura Engineering Journal, ISSN: 11100141, March 2011, pp. E25-E31.
- 5. **Ebrahim A. Badran**, Mohammad E. Rizk, and Mansour H. Abdel-Rahman, "Suppression of Back-Flow Surge in Wind Farms Considering Nonlinearity of the Ground", Journal of Energy and Power Engineering, USA, Vol. 3, No. 12, Dec. 2009.
- 6. **Ebrahim A. Badran**, Mohammad E. Rizk, and Mansour H. Abdel-Rahman, "Analysis and Suppression of Back-Flow Lightning Surges in Onshore Wind Farms", Journal of Lightning Research, June 2011, Volume 3, pp. 1-9.
- 7. Fathi M. H. Youssef, **E. A. Badran**, and S. Abulanwar, "Dynamic Performance Comparison between STATCOM and SVC", Journal on Electronics and Electrical Engineering (OJEEE), Vol. 3, No. 3, pp. 425-429, December 2011.
- 8. **Ebrahim A. Badran**, Mohammad E. M. Rizk, and Mansour H. Abdel-Rahman, "Investigation of Ferroresonance in Offshore Wind Farms", Journal of American Science, Vol. 7, No. 10, October 2011, pp. 329-337.
- 9. **Ebrahim A. Badran**, Elsaeed Abdallah, and Kamal M. Shebl, "A Complete General Intelligent Approach for HIF Detection and Classification in Distribution Systems", Journal of American Science, Vol. 7, No. 10, October 2011, pp. 320-328.
- 10. Ebrahim A. Badran, Magdi M. El-Saadawi and Heba Beder, "Evaluation of DG Impact on the Behavior of North Delta Distribution Network Protection System", Mansoura Engineering Journal, ISSN: 11100141, June 2012, pp. E25-E31.
- 11. A. Said, **Ebrahim A. Badran**, and M. A. Abd-Allah, "Mitigation of Very Fast Transient Overvoltages at the More Sensitive Points in Gas-Insulated Substation", International Journal of Electrical and Power Engineering, Medwell Journals, Vol. 6, No. 3, 2012, pp. 118-123.
- 12. A. Said, **Ebrahim A. Badran**, and M. A. Abd-Allah, "Mitigation of Very Fast Transient Overvoltages at the More Sensitive Points in Gas-Insulated Substation", International Journal on Electrical Engineering and Informatics, Vol. 4, No. 3, October 2012, pp. 414-425.
- 13. **Ebrahim A. Badran**, A. Said, and M. A. Abd-Allah, "Proposed Techniques for Mitigation of Very Fast Transients Due to Disconnector Switching in Gas Insulated Substations", International Journal of Engineering and Innovative Technology, November 2012, Paper No. IJEIT201211-1059.
- 14. **Ebrahim A. Badran**, Mansour H. Abdel-Rahman, and Mohammad Hamed Abdelrahem, "ANN-Based Approach for Fault Detection in GIS", International Journal of Engineering Sciences & Research Technology, Vol. 3, No. 12, December 2012, pp.514-520.
- 15. **Ebrahim A. Badran**, Mohammad Hamed Abdelrahem, and Mansour H. Abdel-Rahman, "An ANN-Based Approach for Lightning-Caused VFT Detection in GIS", Journal of Lightning Research, Vol. 5, March 2013, pp.1-10.

Page 8 of 28

- 16. **Ebrahim A. Badran**, M. A. Abd-Allah, Abdelsalam H. Hamza, and Tamer Elyan, "A Proposed Transient Recovery Voltage Mitigation Technique for Generator-Circuit-Breaker Fed Faults", Journal of Electrical Systems, Vol. 9, Iss. 1, March 2013, pp.79-85.
- 17. Eman O. Hassan, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "A Ferroresonance Oriented Comparison between Current High Frequency Transformer Models", Mansoura Engineering Journal, Vol. 39, No. 1, March 2013, pp. E1-E7.
- 18. Tamer Elyan, **Ebrahim A. Badran**, M. A. Abd-Allah, and Abdelsalam H. Hamza, "Mitigation of the Transient Recovery Voltage on Generator Circuit Breaker during Generator Fed Faults", International Journal of Scientific and Research Publications, (IJSRP), Vol. 3, No. 11, Nov. 2013.
- 19. M. A. Abd-Allah, Tamer Elyan, **Ebrahim A. Badran**, and Abdelsalam H. Hamza, "Transient Overvoltage During Switching a Distributed Wind Generator Connected to a Power Grid", IOSR Journal of Engineering (IOSRJEN), Vol. 6, 2013.
- M. A. Abd-Allah, Tamer Elyan, Ebrahim A. Badran, and Abdelsalam H. Hamza, "Transient Overvoltage During CB Switching in Distribution Network with Distributed generators", IOSR Journal of Engineering (IOSRJEN), Vol. 6, 2013.
- 21. Mohammed El Moursi, Khaled Goweily, and **Ebrahim A. Badran**, "Enhanced Fault Ride Through Performance of the SEIG Based Wind Park during Unbalanced Grid Operation", IET Power Electron., 2013, Vol. 6, Iss. 8, pp. 1683–1695.
- 22. M. A. Abd-Allah, A. Said, and **Ebrahim A. Badran**, "High-Frequency Spectrum Analysis of VFTO Generated inside Gas Insulated Substations", World Academy of Science, Engineering and Technology, Vol. 79, 2013, pp. 1036-1043.
- 23. Mohamed A. Abd-Elaziz, Ebrahim A. Badran, and Mohamed M. I. El-Shmoty, " A General Approach For Internal Faults Representation of Three-Phase Three-winding Transformers in EMTP-ATP", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 2, Issue 9, September 2013, pp. 1140-1148.
- 24. Mohammad E. M. Rizk, Ebrahim A. Badran, and Mansour H. Abdel-Rahman, "FDTD Calculation of Transient Electromagnetic Fields in the Grounding System of Wind Towers due to Direct Lightning Strikes", Submitted to Journal of Lightning Research, January 2014.
- 25. Eman A. Awad, Ebrahim A. Badran, and Fathi M. H. Youssef, "Mitigation of Switching Overvoltages due to Energization Procedures in Grid-Connected Offshore Wind Farms", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 3, Issue 1, January 2014, pp. 2560-2568.
- 26. Eman A. Awad, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "Mitigation of Temporary Overvoltages in Weak Grids Connected to DFIG-based Wind Farms", Journal of Electrical Systems, Vol. 10, Iss. 4, October 2014, pp.431-444.
- Haider Muaelou, Khaled M. Abo-Al-Ez, and Ebrhim A. Badran, "Control Design of Grid-Connected PV Systems for Power Factor Correction in Distribution Power Systems Using PSCAD", International Journal of Scientific & Engineering Research, Volume 6, Issue 8, August-2015, pp. 1092-1099.
- 28. Walaa El-Hadad and **Ebrahim A. Badran**, "ATP-Based Fuzzy logic Controller Model for Electromagnetic Transients' Studies", Mansoura Engineering Journal, Vol. 40, Iss. 4, December 2015, pp. E36-E45.
- Mohammad E. M. Rizk, Farhan Mahmood, Matti Lehtonen, Ebrahim A. Badran, and Mansour H. Abdel-Rahman, "Investigation of Lightning Electromagnetic Fields on Underground Cables in Wind Farms", IEEE Transactions on Electromagnetic Compatibility, Vol. 58, No. 1, February 2016, pp. 143-152.
- Mohammad E. M. Rizk, Farhan Mahmood, Matti Lehtonen, Ebrahim A. Badran, and Mansour H. Abdel-Rahman, "Influence of Highly Resistive Ground Parameters on Lightning-Induced Overvoltages Using 3-D FDTD Method", IEEE Transactions on Electromagnetic Compatibility, Vol. 58, No. 3, June 2016, pp. 792-800.
- 31. **Ebrahim A. Badran**, "ATPDraw-Based Detailed DSP Model for Power System Studies", Mansoura Engineering Journal, Special Issue, June 2016, pp. E1-E6.

- 32. Eman A. Awad, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "Effect of Switching Overvoltages on Microgrid's Performance", Mansoura Engineering Journal, Special Issue, June 2016, pp. E1-E6.
- 33. Ommohamed Mohamed, **Ebrahim A. Badran**, and Ibrahim I. I. Mansy, "A Comparison between Some Currently Used Regulator Devices for Enhancement of Voltage Regulation in NDEDC", Mansoura Engineering Journal, Special Issue, June 2016, pp. E1-E6.
- 34. Rabab R. M. Eiada, **Ebrahim A. Badran**, and Ibrahim I. I. Mansy, "A Proposed BPSO-Based Algorithm for UPFC in Smart Transmission System", Mansoura Engineering Journal, Special Issue, June 2016, pp. E1-E6.
- 35. **Ebrahim A. Badran**, Khaled M. Abo-Al-Ez, and Haider Muaelou, "A Proposed Control Strategy to Improve the Low Voltage Ride Through Capability of PV System with Keeping the DC Link Voltage Constant", Journal of Electrical Engineering, Vol. 16/2016, No. 2, Paper 19, July 2016, pp. 144-155.
- 36. Mohammad E. M. Rizk, Farhan Mahmood, Matti Lehtonen, **Ebrahim A. Badran**, and Mansour H. Abdel-Rahman, "Induced Voltages on Overhead Line by Return Strokes to Grounded Wind Tower Considering Horizontally Stratified Ground", IEEE Transactions on Electromagnetic Compatibility, Vol. 58, No. 6, Dec. 2016, pp. 1728-1738.
- 37. Mohammad E. M. Rizk, Farhan Mahmood, Matti Lehtonen, **Ebrahim A. Badran**, and Mansour H. Abdel-Rahman, "Computation of Peak Lightning-Induced Voltages due to the Typical First and Subsequent Strokes Considering High Ground Resistivity", IEEE Transactions on Power Delivery, Vol. 32, No. 4, August 2017, pp. 1861-1871.
- 38. Eman A. Awad, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "A Proposed Supercapacitor-Based Mitigation of Microgrid Switching Overvoltage", Journal of International Transactions on Electrical Energy Systems, Vol. 28, Iss. 2, February 2018.
- 39. Eman A. Awad, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "Mitigation of Switching Overvoltages in Microgrids Based on SVC and Supercapacitor", IET-Gen. Trans. & Dist., Vol. 12, Iss. 2, February 2018, pp.355-362.
- 40. Basma M. Samy, Abdel-Fattah Eladl, and **Ebrahim A. Badran**, "A Proposed Single-Tuned Filter for Harmonic Reduction in Grid-Tied PV Systems", Port-Said Engineering Research Journal, Vol. 23, No. 2, Sept. 2019, pp. 1-6.
- 41. Eman. O. Hassan, Ahmed Y. Hatata, **Ebrahim A. Badran**, and Fathi M. H. Yossef, "Optimal Coordination of Voltage Control Devices in Distribution Systems Connected to Distributed Generations", Electrical Engineering, Springer, ELEN, 2019, doi: 10.1007/s00202-019-00764-2.
- 42. Eman. O. Hassan, Ahmed Y. Hatata, **Ebrahim A. Badran**, and Fathi M. H. Yossef, "A New Strategy-Based on ANN for Controlling the Electronic On-Load Tap-Changer", International Transactions on Electrical Energy Systems, July 2019.
- 43. Rabab R. M. Eiada, **Ebrahim A. Badran**, and Ibrahim I. I. Mansy, "Smart Enhancement of UPFC Performance in Transmission Systems using BPSO and ANNC", EJECE, European Journal of Electrical and Computer Engineering, Vol. 3, No. 5, October 2019,
- 44. Mohammed A. Barakat, Ahmed Y. Hatata, and **Ebrahim A. Badran**, "Protection of Transformer due to External Fault between Two Voltage Levels using Overvoltage Protection and Sequence Component of Currents", Electric Power System Research, Vol. 184, No. 106339, July 2020.
- 45. Mohamed S. Elbelkasy, **Ebrahim A. Badran**, and Mansour H. Abdel-Rahman, "Overview of DC and AC Electric Railway Systems Considering Energy Efficiency Enhancement Methods", Port-Said Engineering Research Journal, PSERJ, Vol. 24, No. 1, March 2020, pp. 128-140.
- 46. Ibrahim Hamdeen, Mohamed A. Saeed, and **Ebrahim A. Badran**, "Mitigation of Lightning Overvoltages using STATCOM in Grid-Connected PV Systems", Port-Said Engineering Research Journal, PSERJ, Vol. 24, No. 1, March 2020, pp. 121-127.
- 47. Eman A. Awad and **Ebrahim A. Badran**, "Mitigation of Transient Overvoltages in Microgrid Including PV Arrays", at IET-Gen. Trans. & Dist., Vol. 14, Iss. 15, pp. 2959-2967, Aug. 2020.
- 48. Eman A. Awad and **Ebrahim A. Badran**, "Mitigation of Transient Recovery voltages using the Supercapacitor", Mansoura Engineering Journal, (MEJ), Vol. 45, Issue 3, Sept. 2020, pp. E37-E42.

- 49. Ebtsam A. Hamza, Bishoy E. Sedhom, and **Ebrahim A. Badran**, "Impact and assessment of the overvoltage mitigation methods in low-voltage distribution networks with excessive penetration of PV systems: A review", International Transactions on Electrical Energy Systems, Oct. 2021.
- 50. Rabab R. M. Eiada and **Ebrahim A. Badran**, "Smart Enhancement of Egyptian Electrical Transmission Network using BPSO", International Journal of Scientific & Engineering Research, Vol. 12, No. 11, November 2021, pp. 1314-1322.
- 51. Heba Beder, Baraa Mohandes, Mohamed Shawky El Moursi, **Ebrahim A. Badran**, and Magdy El Saadawi, "A New Communication-Free Dual Setting Protection Coordination of Microgrid", IEEE Transactions on Power Delivery, Dec. 2021.
- 52. Heba Beder, **Ebrahim A. Badran**, and Magdy El Saadawi, "Inrush Current Detection Enhancement for Legacy Overcurrent Relays in North Delta Electric Distribution Company", Electric Power System Research, Vol. 185, Dec. 2021.
- 53. Abdelwahab D. Bebars, Abdelfattah A. Eladl, Gabr M. Abdelsalam, and **Ebrahim A. Badran**, "Internal Electrical Fault Detection Techniques in DFIGBased Wind Turbines: A Review", Protection and Control of Modern Power Systems, Jan. 2022.
- 54. Elham M. Tantawy, **Ebrahim A. Badran**, Mansour H. Abdel-Rahman, "Technical and economical assessment of voltage Sags in Distribution System Connected to DGs", International Transactions on Electrical Energy Systems, May 2022.
- 55. Elham M. Tantawy, **Ebrahim A. Badran**, and Mansour H. Abdel-Rahman, "Feasibility Study for STATCOM'S Capacitor Selection for Voltage Sag Mitigation", Mansoura Engineering Journal, (MEJ), Vol. 47, Issue 5, October 2022, pp. E1-E8
- Shimaa Abdel-Raouf Salem, Rabab Reda Eiada, Ebrahim A. Badran, "A proposed method for reduction of induced zero-sequence current in cable system", International Journal of Power Electronics and Drive Systems (IJPEDS), Vol. 13, No. 4, December 2022, pp. 2071-2078, DOI: 10.11591/ijpeds.v13.i4.
- 57. Mohamed M. EL-Shafhy, Alaa M. Abdel-hamed, and **Ebrahim A. Badran**, "Ferroresonance in Distribution Systems State of the Art", Przeglad Elektrotechniczny (Electrical Review), ISSN 0033-2097, R. 98, November 2022, pp. 1-15, doi:10.15199/48.2022.11.01.
- 58. Alaa M. Abdel-Hamed, Mohamed M. El-Shafhy, and **Ebrahim A. Badran**, "Elimination of ferroresonance in the distribution zone by high ohmic reactor-shunt limiter", Indonesian Journal of Electrical Engineering and Computer Science, Vol. 28, No. 3, December 2022, pp. 1286-1296, DOI: 10.11591/ijeecs.v28.i3.
- 59. Alaa M. Abdel-Hamed, Mohamed M. El-Shafhy, and **Ebrahim A. Badran**, "High Ohmic Reactor as a Shunt Limiter (HOR-SL) Method for Ferroresonance Elimination in the Distribution System", IEEE Access, Vol. 10, 2022, pp. 134217-134229, DOI: 10.1109/ACCESS.2022.3231190
- 60. Shimaa Abdel-Raouf Salem, Rabab Reda Eiada, **Ebrahim A. Badran**, "Zero-Sequence Current in Cable Systems: A Study", Mansoura Engineering Journal, (MEJ), Vol. 48, Issue 1, Jan. 2023, pp. E1-E15
- 61. Alaa M. Abdel-Hamed, Mohamed M. El-Shafhy, and **Ebrahim A. Badran**, "A new method for ferroresonance suppression in an IEEE 33-bus distribution system integrated with multi distributed generation" Scientific Reports, May 2023, 13:3381, doi.org/10.1038/s41598-023-30268-w.
 - Noura E. Mohammed, Tamer F. Megahed, and Ebrahim A. Badran, "Microgrid Voltage Control Using Model Predictive Control Based on H-Infinity Controller", submitted to ISA Transactions.
 - Ebtsam Hamza, Bishoy Elkis Sydhom, and Ebrahim A. Badran, "Proposed Control Technique -Based Model Predictive Control for Voltage Regulation with Penetration of PV Units in Smart Distribution Network", submitted to ISA Transactions.
 - Om mohamed M. Elfadawy, Bishoy E. Sedhom, and Ebrahim A. Badran, "Operational Control Methods for Hybrid AC/DC Smart Microgrids: An Overview", submitted to Journal of Modern Power Systems and Clean Energy.

Page 11 of 28

2- Conference Papers

- 1. Mansour H. Abdel-Rahman, Gabr M. Abdel-Salam, and **Ebrahim A. Badran**, "Multiconductor Transmission Line Model for Multiwinding Transformer for Very Fast Transient Studies", European EMTP-ATP Users Group Meeting, Budapest, Hungary, 10-12 November, 1996.
- 2. M. H. Abdel-Rahman, G. M. Abdel-Salam, and **Ebrahim A. Badran**, "Complete Transformer Model for Very Fast Transient Studies", European EMTP-ATP Users Group Meeting, Barcelona, Espana, 9-11 November, 1997.
- 3. Mansour H. Abdel-Rahman, Fathi M. H. Youssef, and **Ebrahim A. Badran**, "A Reduced Model for the PWM-Controlled STATCOM", Proceedings of The 4th International Conference on Electrical Power Quality and Supply Reliability, Pedsa, Estonia, August 29-31, 2004.
- M. M. I. El-Shamoty, Ebrahim A. Badran, and Mohamed Saad El-Morcy, "A Detailed Model for the STATCOM Using ATPdraw", 12th International Middle East Power System Conference (MEPCON' 2008), 12-15 March, 2008, Aswan, South Valley University, Egypt.
- M. M. I. El-Shamoty, Ebrahim A. Badran, and Mohamed Saad El-Morcy, "ATPdraw STATCOM Detailed Modelling to Study the Interaction with the Synchronous Generator", 6th International Engineering Conference (IEC2008), 20-23 March, 2008, Mansoura - Sharm El-Sheikh, Faculty of Engineering, Mansoura University, Egypt.
- Ebrahim A. Badran, M. M. I. El-Shamoty, and Mohamed Saad El-Morcy, "A Phase-Controlled STATCOM Benchmark Model for Power System Studies using ATPdraw", The International Conference on Computer Engineering and Systems (ICCES09), 14-16 December, 2009, Faculty of Engineering, Ain Shams University, Cairo, Egypt.
- 7. **Ebrahim A. Badran**, "A New Approach for the Improvement of Synchronous Generators' Reactive Power Sharing Using STATCOM in Power Plant", The 13th International Middle East Power System Conference (MEPCON' 2009), 20-23 December, 2009, Asuit University, Asuit, Egypt.
- 8. Kamal M. Shebl, **Ebrahim A. Badran**, and Elsaeed Abdalla, "A Combined MODELS-TACS ATPdraw General Model of the High Impedance Faults in Distribution Networks", The 14th International Middle East Power System Conference (MEPCON' 2010), 19-21 December, 2010, Cairo University, Cairo, Egypt.
- 9. **Ebrahim A. Badran**, Mohammad E. M. Rizk, and Mansour H. Abdel-Rahman, "Investigation of Submarine Cable Parameters Impact on Energization Transients in Offshore Wind Farms", International Power System Transients Conference (IPST2011), 14-17 June, 2011, Delft, The Netherland, Paper No. 182, 7 Pages.
- 10. Fathi M. H. Youssef, E. A. Badran, and S. Abulanwar, "Dynamic Performance Comparison between STATCOM and SVC", The 2011 World Congress on Electronics and Electrical Engineering (WCEEENG'11), Cairo, Egypt, 23–27 December 2011.
- 11. **Ebrahim A. Badran,** Magdi M. El-Saadawi, Heba Beder, "Distributed Generation Impacts on the Rural Lines Protection in North Delta Eectric Distribution Company", ICECE 2013, March 2013, Bengazy, Lybia.
- 12. Eman O. Hassan, **E. A. Badran**, and Fathi M. H. Youssef, "A Comparison between Current High Frequency Transformer Models with Special Regard to Ferroresonance", The 2012 World Congress on Electronics and Electrical Engineering (WCEEENG'12), Cairo, Egypt, 23–27 December 2012.
- 13. E. Tantawy, **Ebrahim A. Badran**, and Mansour H. Abdel Rahman, "Investigation of Electromagnetic Transients in Electric Power Systems", Al-Azhar Engineering Twelfth International Conference (AEIC), 25-27 December 2012, Paper No. E24.
- 14. **Ebrahim A. Badran**, and Mansour H. Abdel Rahman, and Mohamed H. Abde-Rahim, "Fault Classification GIS using ANN", Accepted for presentation at ICECE 2013, March 2013, Bengazy, Lybia.
- 15. M. A. Abd-Allah, Ebrahim A. Badran, Abdelsalam H. Hamza, and Tamer Elyan, "A New Technique for Transient Recovery Voltage Suppression on Generator Circuit Breaker for Generator Fed Faults", 22nd International Conference on Electricity Distribution (CIRED), Stockholm, 10-13 June 2013, Paper No. 65.

Page 12 of 28

- 16. Heba Beder, **Ebrahim A. Badran**, and Magdi M. El-Saadawi, "Investigation of the Impact of DG on the Behaviour of NDEDC Protection Systems", 22nd International Conference on Electricity Distribution (CIRED), Stockholm, 10-13 June 2013, Paper No. 100.
- 17. Abdullah Elsawalhy, **Ebrahim A. Badran**, and Sayed Nagy, "Mitigation of Harmonic Distortion in VFD-based Industrial Distribution System with PFC", the 16th International Middle East Power System Conference (MEPCON' 2014), 23-25 December 2014, Ain Shams University, Cairo, Egypt.
- 18. Eman A. Awad, Ebrahim A. Badran, and Fathi M. H. Youssef, "Effect of Power System Parameters on The Temporary Overvoltages in Grid-Connected Off-Shore Wind Farms", the 16th International Middle East Power System Conference (MEPCON' 2014), 23-25 December 2014, Ain Shams University, Cairo, Egypt.
- 19. **Ebrahim A. Badran**, Eman O. Hassan, and Fathi M. H. Youssef, "Study of the Parameters Affecting the Resonance Stresses In the High Voltage Power Transformers", The International Colloquium on Lightning and Power Systems, Lyon, France, 12-14 May 2014.
- 20. Haidar Alqurashy, Khaled M. Abo-Al-Ez, **Ebrahim A. Badran**, "Control Design of Grid Connected PV Systems for Power Factor Correction in Distribution Power Systems using PSCAD", 8th International Engineering Conference, 17-22 November 2015, Mansoura University, Mansoura, Egypt.
- 21. Walaa El-Hadad and Ebrahim A. Badran, "ATP-Based Fuzzy logic Controller Model for Electromagnetic Transients' Studies", 8th International Engineering Conference, 17-22 November 2015, Mansoura University, Mansoura, Egypt.
- 22. **Ebrahim A. Badran**, "ATPDraw-Based Detailed DSP Model for Power System Studies", 17th International Middle East Power System Conference (MEPCON' 2015), 23-25 December, 2015, Mansoura University, Mansoura, Egypt.
- 23. Eman A. Awad, Ebrahim A. Badran, and Fathi M. H. Youssef, "Effect of Switching Overvoltages on Microgrid's Performance", 17th International Middle East Power System Conference (MEPCON' 2015), 23-25 December, 2015, Mansoura University, Mansoura, Egypt.
- 24. Ommohamed Mohamed, **Ebrahim A. Badran**, and Ibrahim I. I. Mansy, "A Comparison between Some Currently Used Regulator Devices for Enhancement of Voltage Regulation in NDEDC", 17th International Middle East Power System Conference (MEPCON' 2015), 23-25 December, 2015, Mansoura University, Mansoura, Egypt.
- 25. Rabab R. M. Eiada, **Ebrahim A. Badran**, and Ibrahim I. I. Mansy, "A Proposed BPSO-Based Algorithm for UPFC in Smart Transmission System", 17th International Middle East Power System Conference (MEPCON' 2015), 23-25 December, 2015, Mansoura University, Mansoura, Egypt.
- 26. Eman A. Awad, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "Mitigation of Microgrid's Switching Overvoltages using Supercapacitor", 19th International Middle East Power System Conference (MEPCON' 2017), 19-21 December, 2017, Minofia University, Shebeen-Elkom, Egypt.
- 27. **Ebrahim A. Badran**, Eman O. Hassan, and Fathi M. H. Youssef, "Study Of the Parameters Affecting the Resonance Stresses In the High Voltage Power Transformers", 19th International Middle East Power System Conference (MEPCON' 2017), 19-21 December, 2017, Minofia University, Shebeen-Elkom, Egypt.
- 28. Mohammed A. Barakat, Ahmed Y. Hatata, and **Ebrahim A. Badran**, "Investigation of Short Circuit between Transmission Lines with Different Voltages", 19th International Middle East Power System Conference (MEPCON' 2017), 19-21 December 2017, Minofia University, Shebeen-Elkom, Egypt.
- 29. Eman O. Hassan, Ahmed Y. Hatata, **Ebrahim A. Badran**, and Fathi M. H. Youssef, "Treatment for Voltage Fluctuation In Distribution Network", 20th International Middle East Power System Conference (MEPCON' 2018), 19-21 December, 2018, Cairo University, Cairo, Egypt.
- Eman A. Awad and Ebrahim A. Badran, "An ATP/TACS-Based Proposed PV Generator Model", 20th International Middle East Power System Conference (MEPCON' 2018), 19-21 December 2018, Cairo University, Cairo, Egypt.
- 31. Ibrahim Hamdeen, Mohammed A. Saeed, and **Ebrahim A. Badran**, "Voltage Dip's Mitigation during PV-Grid-Connection using STATCOM", 20th International Middle East Power System Conference (MEPCON' 2018), 19-21 December 2018, Cairo University, Cairo, Egypt.

- 32. Walaa El-Hadad, Ahmed Y. Hatata, and **Ebrahim A. Badran**, "A Proposed Adaptive Distance Relay Model in ATPDraw", 20th International Middle East Power System Conference (MEPCON' 2018), 19-21 December 2018, Cairo University, Cairo, Egypt.
- 33. Eman A. Awad and **Ebrahim A. Badran**, "A Proposed Three-Phase PV System Model Based on Equivalent Newton Raphson Circuit using ATP/TACS", accepted for presentation at International Power System Transients Conference (IPST2019), 17-19 June, Leon, France.
- 34. Mohamed S. Elbelkasi, **Ebrahim A. Badran**, Mansour H. Abdel-Rahman, and Zdemek Muller, "Modeling of AC Electric Railway System using PSCAD/EMTDC", Electrical Systems Conference, Pragh, Zchec, Feb. 2020.
- 35. Rabab R. M. Eiada and **Ebrahim A. Badran**, "Minimization Losses of Distribution Systems connected with Distributed Generation Units using JFPSO", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.
- 36. Alaa M. Abdel-Hamed, Mohamed M. El-Shafhy, and **Ebrahim A. Badran**, "Investigating Ferroresonance in the Distribution Zone", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.
- 37. Eman A. Awad and **Ebrahim A. Badran**, "Reigniting Model of VCB for Renewable Energy Resources Transmission Systems", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.
- 38. Elham Tantawy, **Ebrahim Badran** and Mansour Abdel-Rahman, "Technical and Economical Assessment of Voltage Sags in Distribution System Connected to DGs", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.
- 39. Alaa M. Abdel-hamed and **Ebrahim A. Badran**, "An Improved PID Control Scheme for DC Servo Motor using Salp Swarm Algorithm", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.
- 40. Shimaa Salem, Rabab Eiada and **Ebrahim Badran**, "Investigation of Zero-Sequence Current in Cable Systems", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.
- 41. **Ebrahim A. Badran**, Hazem M. Bobo, Ahmed F. Al-Fowaty, Ahmed M. Abdel-Salam, Fatma I. Mansy, Mohamed S. Nasr, Fouad A. Eissa, Mohammed G. Rafaat, Mariam T. Hussein and Mennatullah E. Hegazy, "A Proposed Self-Powered Smart Pole for Highways", 23rd International Middle East Power Systems Conference (MEPCON), Kafrelshiekh University, Egypt 13-15 December 2022.

3- Conference Committee Member

- International Power System Conference, **MEPCON'15**, Mansoura University, 24-26 Dec. 2015, Organization Member.
- XXI IEEE International Autumn Meeting on Power, Electronics, and Computing, **ROPEC 2019**, "Renewable Energy", PC Editor Member.
- International Power System Conference, **MEPCON'23**, Mansoura University, 19-21 Dec. 2023, Vice Conference President.

4- International & English Books

- ♦ Ebrahim A. Badran, "Protection Systems", Mansoura University, 2011.
- ♦ Ebrahim A. Badran, "Electrical Measurements", Mansoura University, 2013, 2017
- ♦ Ebrahim A. Badran, "Transmission Voltage Control", Mansoura University, 2014, 2018
- ♦ Mohammad Hamed Abdelrahem, **Ebrahim A. Badran**, and Mansour H. Abdel-Rahman, "DC Microgrids, Advances, Challenges, and Applications: Chapter 1 On the DC Microgrids Protection Challenges, Schemes, and Devices A Review", Wiley, Feb. 2022.

5- Arabic Books

- S. Ismael and **Ebrahim A. Badran**, "Electric and Electronic Measuring and Control Instruments", Special Studies Academy, WU, 1st Ed., 2003. (2nd Ed. 2004, 3rd Ed. 2005, and 4th Ed. 2006).
- E. Osman and **Ebrahim A. Badran**, "The Quality Control Regulations", Special Studies Academy, WU, 1st Ed., 2004. (2nd Ed. 2005, and 3rd Ed. 2006).
- N. Teweeg and **Ebrahim A. Badran**, "Notes on Electrical Workshop", Special Studies Academy, WU, 1st Ed., 2006.
- N. Teweeg and **Ebrahim A. Badran**, "Engineering Mathematics", Special Studies Academy, WU, 1st Ed., 2007.
- S. Zaghlool, S. Awad, and **Ebrahim A. Badran**, "The International Quality Regulations", Special Studies Academy, WU, 1st Ed., 2007.
- ♦ H. Elmadboly and **Ebrahim A. Badran**, "Project Notes for Electrical Students", Special Studies Academy, WU, 1st Ed., 2007.
- ♦ H. Fekry, S. Ismael and **Ebrahim A. Badran**, "Electric and Electronic Measuring and Control Instruments", Special Studies Academy, WU, 1st Ed., 2007.
- ♦ Ebrahim A. Badran, "Fundamentals of Computer and its Uses"", Special Studies Academy, WU, 1st Ed., 2008
- ♦ **Ebrahim A. Badran** and F. Elgohary, "International Quality Regulations in Industry", Special Studies Academy, WU, 1st Ed., 2009.
- **Ebrahim A. Badran**, "Projects Management", Mansoura University, 2013 and 2017.
- Ebrahim A. Badran, "Research and Analysis", Mansoura Collage Academy, 2016.

Thesis's Supervision

1- Awarded Thesis

1. Mohamed Saad El-morsy

M.Sc. Thesis "Study of the Interaction between the Static Var Compensators and the Excitation Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at 27 March 2008.

2. Elsaeed Abdalla Abdel-Salam Ali

M.Sc. Thesis, "Intelligent Model for Diagnosis of High Impedance Faults in Electrical Power Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at 30 June 2011.

3. Mohamed Elsaeed Mohamed Sleem Rezk

M.Sc. Thesis "Transient Voltage in Power Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at 28 June 2011.

4. Heba Mohamed Bdeer Ali Albaramawy

M.Sc. Thesis "Evaluation of DG Impact on the Behavior of North Delta Distribution Network Protection System", Faculty of Engineering, Mansoura University, <u>Awarded</u> at 20 September 2012.

5. Abdel-Rahman Saied Ghoneem

M.Sc. Thesis "Study of Very Fast Transient Overvoltages Due to Switching Operations in High Voltage Gas Insulated Substations", Shubra Faculty of Engineering, Benha University, <u>Awarded</u> at 25 December 2012.

6. Eman Osman Hassan Mohamed

M.Sc. Thesis "Determination of Typical Criteria for the Evaluation of Resonance Stresses in HV Transformers", Faculty of Engineering, Mansoura University, <u>Awarded</u> at 24 June 2013.

7- Mohamed Hamed Abel-Rahim Ibrahim

M.Sc. Thesis "Computation of Very Fast Transients in Gas Insulated Substations", Faculty of Engineering, Mansoura University, Awarded at 30 August 2013.

8- Elham Mohamed Abdel-Menem Tantawi

M.Sc. Thesis "Study of Current Interruption Transients Phenomena", Faculty of Engineering, Mansoura University, <u>Awarded</u> at 30 August 2013.

9- Mohamed Ahmed Abel-Aziz

M.Sc. Thesis "Discrimination the Transformer Internal Winding Faults", Faculty of Engineering, Mansoura University, Awarded at 20 January 2014.

10- Eman Ahmed Awad Awad Megahed

M.Sc. Thesis "Mitigation of Temporary Overvoltages in Weak Grids Connected to HVAC Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at May 2014.

11- Tamer Elyan Abdelal Elyan Hamama

Ph.D. Thesis "Improvement the GenCB's Switching Performance", Shubra Faculty of Engineering, Benha University, <u>Awarded</u> at July 2014.

12- Abdalla Ali Alsawalhy

M.Sc. Thesis "Power Quality of Distribution Systems", Faculty of Engineering, Alazhar University, <u>Awarded</u> at July 2015.

13- Haider Muaelou Shaillan

M.Sc. Thesis "Fault Ride-Through Capability Enhancement of PV Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at November 2015.

14- Mustafa Ahmed Ali Al-adawy

M.Sc. Thesis "Design and Operation of Active Power Conditioners", Faculty of Engineering, Mansoura University, <u>Awarded</u> at October 2016.

15- Mohamed Elsaeed Mohamed Sleem Rezk

Ph.D. Thesis "Investigation of power system grounding with reference to wind farms", Faculty of Engineering, Mansoura University, in combination with Alto University of Technology, Finland, <u>Awarded</u> at November 2016.

Page 16 of 28

16. OmMohamed Mohamed Ahmed Elfedawy

M.Sc. Thesis "Improvement of Voltage Regulation in NDEDC", Faculty of Engineering, Mansoura University, <u>Awarded</u> at February 2018.

17. Walaa Mahmoud Alhadad

M.Sc. Thesis "Fuzzy Logic-Based Distance Protection Model for Series Compensated Lines in ATP", Faculty of Engineering, Mansoura University, Awarded at April 2018.

18. Eman Ahmed Awad Awad Megahed

Ph.D. Thesis "Investigation of Transient Overvoltages in MicroGrids", Faculty of Engineering, Mansoura University, <u>Awarded</u> at Feb. 2019.

19. Basma Mahmoud Samy Elaghory

M.Sc. Thesis "Investigation of Distribution Generation Impact on Electrical Distribution Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at June 2019.

20. Rabab Reda Mohamed Ibrahim

Ph.D. Thesis "Smart Enhancement of the Transmission Grids Performance", Faculty of Engineering, Mansoura University, <u>Awarded</u> at August 2019.

21. Eman Osman Hassan Mohamed

Ph.D. Thesis "Improvement of Electric Voltage Quality using Electronic On-Load Tap-Changer of Distribution Transformers with application on NDEDC", Faculty of Engineering, Mansoura University, <u>Awarded</u> at Feb 2020.

22. Mohamed Samy Elbekasy

M.Sc. Thesis "Transient Analysis of Electric Railways Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at May 2020.

23. Ibrahim Hamdeen Ibrahim

M.Sc. Thesis "Study of Transient Overvoltages in Grid-Connected PV Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at July 2020.

24. Heba Mohamed Bdeer Ali Albaramawy

Ph.D. Thesis "Study of Fault Ride Through of Distributed Generation Units Connected to Distribution Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at June 2021.

25. Mohamed Awad Barakat

M.Sc. Thesis "Transformer Protection Against Transients of Electric Power Systems", Faculty of Engineering, Mansoura University, Awarded at July 2022.

26. Abdel-Wahab Deia Bebers

M.Sc. Thesis "Detection of Internal Faults in Windings of Doubly Fed Induction Generators in Wind Farms", Faculty of Engineering, Mansoura University, <u>Awarded</u> at Dec. 2022.

27. Mohamed Mahmoud Abdel-Aziz Elshafhy

M.Sc. Thesis "Study of Distributed Generation effect on The Transients Phenomena in Electrical Distribution Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at Dec. 2022.

28. Elham Mohamed Abdel-Menem Tantawi

Ph.D. Thesis "Transient Analysis of Electric Power Systems", Faculty of Engineering, Mansoura University, Awarded in Jan. 2023.

29. Shimaa Abdelraoof Salem Ammar

M.Sc. Thesis "Study of Electromagnetic Transients in HV Cables", Faculty of Engineering, Mansoura University, Faculty of Engineering, Mansoura University, <u>Awarded</u> at Jan. 2023.

30. Ebtisam Anas Hamza

M.Sc. Thesis "Study the Effect of High Penetration of Photovoltaic Systems in Distribution Networks", Faculty of Engineering, Mansoura University, <u>Awarded</u> at July 2023.

2- Current Thesis

1. Noura Ezzat Mohamed

M.Sc. Thesis "Control of Microgrid's Voltage", Faculty of Engineering, Mansoura University, since 23 Feb. 2019.

2. OmMohamed Mohamed Ahmed Elfedawy

Ph.D. Thesis "Analysis and Operational Control of Hybrid AC/DC Microgrids", Faculty of Engineering, Mansoura University, since 16 March 2020.

3. Mohamed Hamed Abel-Rahim Ibrahim

Ph.D. Thesis "Study of DC Microgrid Protection", Faculty of Engineering, Mansoura University, since 13 Aug. 2020.

4. Mohamed Elsaid Abdelfattah

M.Sc. Thesis "Study of Electromagnetic Transients in HV Cables", Faculty of Engineering, Mansoura University, Faculty of Engineering, Mansoura University, since 13 Sept. 2020.

5. Eman Atef

M.Sc. Thesis "Study of Electromagnetic Transients in HV Cables", Faculty of Engineering, Mansoura University, Faculty of Engineering, Mansoura University, since 13 Sept. 2020.

6. Walaa Mahmoud Alhadad

Ph.D. Thesis "Stability Enhancement of Electric Power Systems Using Virtual Inertia Control", Faculty of Engineering, Tanta University, 13 May 2021.

7. Basma Mahmoud Samy Alaghory

Ph.D. Thesis "Study of DC Microgrid Protection", Faculty of Engineering, Mansoura University, since 13 Aug. 2021.

8. Amany Rady Nasr

Ph.D. Thesis "Study of DC Microgrid Protection", Faculty of Engineering, Mansoura University, since 13 Aug. 2021.

9. Mohamed Salah Weheb

M.Sc. Thesis "Study of Electromagnetic Transients in HV Cables", Faculty of Engineering, Mansoura University, Faculty of Engineering, Mansoura University, since 13 Oct. 2021.

10. Raghdaa Ibrahim Albahy

M.Sc. Thesis "Study of Electromagnetic Transients in HV Cables", Faculty of Engineering, Mansoura University, Faculty of Engineering, Mansoura University, since 13 Nov. 2021.

11. Mohamed Samy Elbekasy

Ph.D. Thesis "Stability analysis of hybrid AC/DC transmission grids with large scale renewable energy resources integration", Faculty of Engineering, Mansoura University, since 13 March 2022.

12. Ibrahim Hamdeen Ibrahim

Ph.D. Thesis "Self-Healing Multi-Agent Techniques in Electric Power Distribution Systems", Faculty of Engineering, Mansoura University, 13 April 2022.

13. Rana Hamed Elmahdy

Ph.D. Thesis "Faults Detection in Electric Power Systems connected with High Penetration of Renewable Energy Sources", Faculty of Engineering, Mansoura University, 13 May 2022.

14. Mohamed Elsaeed

M.Sc. Thesis "Investigation of Microgrids Protection Systems", Faculty of Engineering, Mansoura University, since 13 May. 2023.

• Mohamed Usama Hamroush

M.Sc. Thesis " ", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.

• Mohamed Shaker Barghash

M.Sc. Thesis " ", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.

- Mohamed Awad Barakat
 - Ph.D. Thesis "", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.
- Abdel-Wahab Deia Bebers

Ph.D. Thesis "", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.

- Mohamed Mahmoud Abdel-Aziz Elshafhy
 - Ph.D. Thesis "", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.
- Shimaa Abdelraoof Salem Ammar
 - Ph.D. Thesis "", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.
- Ebtisam Anas Hamza

Ph.D. Thesis "", Faculty of Engineering, Mansoura University, since 13 Aug. 2023.

3- Committee Member of Thesis Defense

- 1- **Mohamed Ahmed Abel-Aziz,** M.Sc. Thesis "Discrimination the Transformer Internal Winding Faults", Faculty of Engineering, Mansoura University, 20 October 2013.
- 2- Eman Ahmed Awad Awad Megahed, M.Sc. Thesis "Mitigation of Temporary Overvoltages in Weak Grids Connected to HVAC Systems", Faculty of Engineering, Mansoura University, May 2014.
- 3- **Tamer Elyan Abdelal Elyan Hamama,** Ph.D. Thesis "Improvement the GenCB's Switching Performance", Shubra Faculty of Engineering, Benha University, December 2014.
- 4- **Haider Muaelou Shaillan,** M.Sc. Thesis "Fault Ride-Through Capability Enhancement of PV Systems", Faculty of Engineering, Mansoura University, November 2015.
- 5- **Mustafa Ahmed Ali Al-adawy**, M.Sc. Thesis "Design and Operation of Active Power Conditioners", Faculty of Engineering, Mansoura University, September 2016.
- 6- **Hassan Wahdan Ali Awad Elsayad,** M.Sc. Thesis "Effect of Load Demand and Smart Measurements on Power System Reliability", Faculty of Engineering, Mansoura University, September 2016.
- 7- **Yara Abdalla Sultan**, M.Sc. Thesis "Enhancing Transient Performance of Smart Drid Power System Using Model Predictive Control", Faculty of Engineering, Mansoura University, July 2017.
- 8- **OmMohamed Mohamed Ahmed Elfedawy,** M.Sc. Thesis "Improvement of Voltage Regulation in NDEDC", February 2018.
- 9- **Mohamed Sabry,** M.Sc. Thesis "Study of Medium Voltage Cables", Faculty of Engineering, Mansoura University, February 2018.
- 10- Walaa Mahmoud Alhadad, M.Sc. Thesis "Fuzzy Logic-Based Distance Protection Model for Series Compensated Lines in ATP", Faculty of Engineering, Mansoura University, April 2018
- 11- **Eman Ahmed Awad Awad Megahed,** Ph.D. Thesis "Investigation of Transient Overvoltages in MicroGrids", Faculty of Engineering, Mansoura University, Dec. 2018.
- 12- **Eman Hussen EL-Desoky,** Ph.D. Thesis "Design and Enhancement of FREEDM System Protection Schemes in Smart Grids", Faculty of Engineering, Mansoura University, June 2018.
- 13- **Basma Mahmoud Samy Elaghory,** M.Sc. Thesis "Investigation of Distribution Generation Impact on Electrical Distribution Systems", Faculty of Engineering, Mansoura University, June 2019.
- 14- **Rabab Reda Mohamed Ibrahim,** Ph.D. Thesis "Smart Enhancement of the Transmission Grids Performance", Faculty of Engineering, Mansoura University, July 2019.
- 15. **Mahmoud Elhayes,** M.Sc. Thesis "Smart Enhancement of the Transmission Grids Performance", Faculty of Engineering, Mansoura University, September 2019.

Page 19 of 28

- 16. **Eman Osman Hassan Mohamed,** Ph.D. Thesis "Improvement of Electric Voltage Quality using Electronic On-Load Tap-Changer of Distribution Transformers with application on NDEDC", Faculty of Engineering, Mansoura University, Nov. 2019.
- 17. **Amged Tarek Mohamed Abd-El-Halim**, M.Sc. Thesis "Evaluation of Distribution System Reliability in Presence of Distributed Generation", Faculty of Engineering, Arab Academy for Science, Technology and Maritime Transport, AASTMT, Dec. 2019
- 18. **Mohamed Samy Elbekasy,** M.Sc. Thesis "Transient Analysis of Electric Railways Systems", Faculty of Engineering, Mansoura University, April 2020.
- 19. **Ibrahim Elmohamady Moustafa**, M.Sc. Thesis "Adaptation Protection of Smart Grid for Renewable Energy in Electrical Power Systems", Faculty of Engineering, Port Said University, May 2020.
- 20. **Ibrahim Hamdeen Ibrahim,** M.Sc. Thesis "Study of Transient Overvoltages in Grid-Connected PV Systems", Faculty of Engineering, Mansoura University, June 2020.
- 21. **Mostafa Hassan M. Abdel-Gawad,** Ph.D. Thesis "Optimal Allocation of Energy Storage System for Improving Performance of Microgrid", Faculty of Engineering, Ain Shams University, Sept. 2020.
- 22. **Heba Mohamed Bdeer Ali Albaramawy**, Ph.D. Thesis "Study of Fault Ride Through of Distributed Generation Units Connected to Distribution Systems", Faculty of Engineering, Mansoura University, June 2021.
- 23. **Hesham Mohamed Fekry Abd-Elmawla,** Ph.D. Thesis "Impact Investigation of Photovoltaics and Wind Generations Penetration on the Performance of Power Systems", Faculty of Engineering, Port Said University, June 2021.
- 24. **Ahmed Yousef**, M.Sc. Thesis "A Practical Study for Analysis of Under-Ground Cable Faults Causes and Determination of their Location", Faculty of Engineering in Shobra, Banha University, July 2022.

27. Mohamed Awad Barakat

M.Sc. Thesis "Transformer Protection Against Transients of Electric Power Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at July 2022.

28. Abdel-Wahab Deia Bebers

M.Sc. Thesis "Detection of Internal Faults in Windings of Doubly Fed Induction Generators in Wind Farms", Faculty of Engineering, Mansoura University, <u>Awarded</u> at Dec. 2022.

31. Mohamed Mahmoud Abdel-Aziz Elshafhv

M.Sc. Thesis "Study of Distributed Generation effect on The Transients Phenomena in Electrical Distribution Systems", Faculty of Engineering, Mansoura University, <u>Awarded</u> at Dec. 2022.

32. Elham Mohamed Abdel-Menem Tantawi

Ph.D. Thesis "Transient Analysis of Electric Power Systems", Faculty of Engineering, Mansoura University, Awarded in Jan. 2023.

33. Shimaa Abdelraoof Salem Ammar

M.Sc. Thesis "Study of Electromagnetic Transients in HV Cables", Faculty of Engineering, Mansoura University, Faculty of Engineering, Mansoura University, <u>Awarded</u> at Jan. 2023.

Ebtisam Anas Hamza

M.Sc. Thesis "Study the Effect of High Penetration of Photovoltaic Systems in Distribution Networks", Faculty of Engineering, Mansoura University, <u>Awarded</u> at July 2023.

B.Sc. Projects' Supervision

Supervising the following B.Sc. Projects in electrical power engineering:

- "Fault Transients in Series Compensated Overhead Transmission Lines Using EMTP/ATP", Mansoura University, 2005.
- "Energizing Transients in an Overhead Transmission Line and Under Ground Cable Composite Circuit Using ATPDRAW", Mansoura University, 2006.
- "Modeling of Power Quality Using ATPDRAW", Mansoura University, 2007.
- "Integrating Power Quality Analysis and Protection Relay Functions", Mansoura University, 2009.
- "Effect of FACTS Devices on Protection System of Wind Farms", Mansoura University, 2010.
- "Transient Analysis of Electric Power System Using ATP-EMTP", Mansoura University, 2010.
- "Simulation of Digital Relay for Power Transformer", Mansoura University, 2010.
- "Distance Relay Performance Evaluation Applied to Transmission Lines With FACTS", Mansoura University, 2011.
- "Study of Zero Sequence Currents in Distribution Cable System", Mansoura University, 2011.
- "Study of FACTS Impact on the Transmission Lines Protection Connected to DCCPP", Mansoura University, 2012.
- "Wireless Energy Transfer", Mansoura University, 2012.
- "A Laboratory-Based Prototype Active Power Filter", 2013.
- "A Laboratory-Based Prototype Overcurrent Digital Relay", 2013.
- "Study the impact of FACTS on the Distance protection of Transmission Systems", Mansoura University, 2013.
- "Study the impact of FACTS on the protection of Distribution Systems", Mansoura University, 2013.
- "HVDC Modeling Using ATP", Mansoura University, 2013.
- "Protection of Wind Farms", Mansoura University, 2014.
- "Mind-Controlled Wheel-Chair with Advanced Communication System for Disabled People", Delta Academy, 2014.
- "Intelligent Remotely Operated Underwater Vehicle (ROV)", Delta Academy, 2014.
- "Electrical Protection of Wind Farms", Mansoura University, 2015.
- "Go Solar", Delta University, 2016.
- "Design Electrometer for Multiple Power Source and Rationalization of Electricity", Delta University, 2016.
- "Protection Design for Distribution Power System including DG-Based Wind Turbine", Mansoura University, 2017.
- "Protection of Microgrids", Mansoura University, 2018.
- "Study of Transients Phenomena in Microgids", Mansoura University, 2018.
- "Protection System Design for Microgrids", Mansoura University, 2019.
- "My Doctor Portable Diagnoses Box", BME, Mansoura University, 2019.
- "Protection Coordination in Microgrids", Mansoura University, 2020.
- "Midical Suction Unit", BME, Mansoura University, 2020.

- "Medical Cooler", BME, Mansoura University, 2020.
- "Protection of HVDC Systems", Mansoura University, 2021
- "Medical Care", BME, Mansoura University, 2021.
- "Self-Powered Smart Pole", Mansoura University, 2022
- "Self-Powered Smart Pole", Damietta University, 2023

Computer Abilities

• Proficient with standard MS Office software such as:

- Windows - MS-Word - MS-Excel - MS-Access - MS-Power Point - MS-Visio

• Proficient with the following programming languages and software:

- FORTRAN - C/C++ - Pascal - Visual C - MatLab - Simulink

• Proficient with the electrical design and power system analysis; e.g. Load Flow, Short Circuit, Harmonic, Grounding, Transmission Lines, Cables, Protection devices, using the following software:

- EMTP-ATP-ATPdraw - EMTDC-PSCAD - PSS/E - ETAP - MatLab-Simulink - Power World - HarmFlo - SuperHArm

Training

- Attended several Technical Training Courses in ARE (EEA):
 - SIEMENS training course B125 about Gas Turbines & Generators, Electrical Systems, and Instruments & Control, from May 1 to June 30, 1994.
 - ■BORSIG training course about Heat Recovery Steam Generator (HRSG), from May 1 to June 30, 1995.
 - CIME-MONTUBI training course about Electrical Auxiliaries of Power Plants, September, 1995.
 - ALSTHOM training course about Turbine, Generator & Exciter, Transformer, and Auxiliary Equipments, May, 1996.
- Familiar with BS and IEC Standards, IEEE Regulations, Industrial Safeties and Local authority's regulations.
- Attended several Training Courses in the University Development Center (UDC), Mansoura University in cooperation with the Faculty and Leadership Development Project (FLDP):
 - Teaching with Technology & E-Learning, December 10-12, 2006.
 - Active Presentation, February 2008.
 - Scientific Writing & Publication, March 2-4, 2008.
 - Legal and Financial Aspects in Universities, March 16-18, 2008.
 - Application of Academic Standards in Education, January 20-22, 2010.
 - New Trends in Assessments, January 23-26, 2010.
 - Management of Research Team, May 30-June 1, 2010.
 - Competitive research projects, June 6-8, 2010.
 - Credit Hours, March 5-7, 2011.
 - University Management, April 17-19, 2011.
 - Design the Electronic Tests, 5-6 March, 2017
 - Design of Personal Websites for Faculty Members, December 24-25, 2017
 - Effective Crisis Management, Feb. 18-19, 2018
 - Designing and Production of Electronic Courses, Sept. 23-24, 2018
 - References Management and Indexed Electronically, Sept. 30- Oct. 1, 2018
 - Search Engines and University Rankings, Dec. 4-5, 2018
 - Self-Evaluating of High Education Programs, Oct. 2019.
 - Measurement and Evaluation Methods and Question Preparing, August, 2020, "Online"
- Attended a Work-Shop about "Trans-European Mobility scheme for University Studies (TEMPUS-IV)", Mansoura University, Faculty of Science, March 3, 2008.
- Attended a Training Courses in "University Teacher's Preparing and Training", Mansoura University, Faculty of Education, August 3-13, 2008.
- Attended a Work-Shop about "High Education Strategically Planning", Mansoura University, Faculty of Engineering, December 22, 2008.
- Attended a Training Courses in "Measurement and Evaluation Methods and Question Preparing", PMU, Ministry of Higher Education, August 20-21, 2020, "Online"
- Attended the following training programs at NAQAAE:
 - Self-Evaluating for High Education Institutes, 30th November- 1st December 2013.
 - Specification of ILOs and Curriculum Maps, 2nd 3rd December 2013.

- External Auditing for High Education Institutes, 4th 5th December 2013.
- Strategic Planning for High Education Institutes, 31st January 2nd February 2016.
- NARS Engineering: Application Tips Workshop, 21th April 2018.
- Program Accreditation: Ideas and Basics, 11th June 2019.
- Self-Evaluating of High Education Programs, 17th-19th Nov. 2019
- Accreditation of the Universities, 12th 13th Feb. 2020.
- NARS 2018 and Competences, 21th March 2020.

Training Supervision

Supervising the following training courses in Industry:

- O Ebrahim A. Badran, et al. "Electric Systems for Small & Medium Industrial Projects", Sandoub Advanced Training Centre, Ministry of Industry in corporation with Canadian Small & Medium Business Support Projects, Mansoura, Egypt, 5 Feb. 1 March, 2000.
- O Ebrahim A. Badran, "Electric Power Distribution", Assiut Petroleum Company, Assiut, Egypt, 4-8 June, 2006.
- **O** Mansour H. Abdel-Rahman and **Ebrahim A. Badran**, "ElectroMagnetic Transients Analysis Using EMTP-ATP", Egyptian Electricity Holding Company, Cairo, Egypt, 3-7 Sept. 2006.
- **O Ebrahim A. Badran**, "Special Applications in Power System Modeling Using ATPdraw", Egyptian Electricity Holding Company, Cairo, Egypt, 15-17 July 2007.
- **O** Mansour H. Abdel-Rahman and **Ebrahim A. Badran**, "Power System Harmonics", Spanish Egyptian Gas Company, SEGAS, Damietta, Egypt, 23-25 Dec. 2007.
- **O** Ebrahim A. Badran, "Essentials of Electrical Distribution System Planning and Design", Spanish Egyptian Gas Company, SEGAS, Damietta, Egypt, 5-9 April 2009.
- **O Ebrahim A. Badran**, "Voltage Regulation in Distribution Systems", North Delta Electricity Distribution Company, NDEDC, Mansoura, Egypt, 1-5 July 2012.
- **O Ebrahim A. Badran**, "DG Applications in Distribution Systems", North Delta Electricity Distribution Company, NDEDC, Mansoura, Egypt, 8-10 July 2012.
- **O Ebrahim A. Badran**, "Accreditation of Higher Education Institutes", Faculty of Engineering, Mansoura University, Mansoura, Egypt, 8-10 Feb. 2021.
- O Ebrahim A. Badran, "Accreditation of Higher Education Institutes", Elsorouk HIET, Shorouk, Egypt, Jan. 2022.
- O Ebrahim A. Badran, "Accreditation of Higher Education Institutes", Al-Arish HIET, Al-Arish, Egypt, Jan. 2023.
- **O Ebrahim A. Badran**, "Accreditation of Higher Education Institutes", Mahalla HIET, Mahalla, Egypt, Feb. 2023.

Employment Records

Dec. 2018 till date	Professor of Electrical Power Systems at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt.
Feb. 2014 till date	Director of Quality Assurance Unit, Faculty of Engineering Mansoura University, Egypt. Accredited at 19 Jan. 2016 and 11 programs are accredited in 2022
Aug. 2017 till Aug. 2018	Supervisor on Electrical Engineering Department, Faculty of Engineering, Damietta University.
July 2013 till Dec. 2018	Associate Professor at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt.
Oct. 2014 till Mar. 2016	Director of Scientific Computing Center, Mansoura University, Egypt.
Aug. 2008 till June 2013	Lecturer at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt.
April 2008 till June 2009 Part Time	Dean of the Alexandria Branch, Special Studies Academy, W U, Alexandria, Egypt.
Sept. 2004 to April 2008	 Head of the Technology Department, Special Studies Academy, W U, Ras-Elbar, Egypt. A Visiting lecturer with The Electrical Engineering Department, Mansoura University
Sept. 1999 to Sept. 2004	Assistant Lecturer with the Technology Department, Special Studies Academy, WU, Ras-Elbar, Egypt.
Dec. 1993 to Sept. 1999	Operation Engineer at Damietta Combined Cycle Power Plant (1200 MW)

Assignments

Dec. 2018 till date	Professor at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt. Teaching the following courses:
	 Undergraduate Level (Power System Protection, Transients, Power System Control, Power Quality, Electrical Measurements, High Voltage)
	- Graduate Level (Power System Protection, Transients, Power System Control, Numerical Analysis and Simulation, Power Quality, High Voltage)
Feb. 2014 till date	Director of Quality Assurance Unit of the Faculty of Engineering. Accredited at 19 Jan. 2016 and 11 programs are accredited in 2022
Aug. 2017 till Aug. 2018	Supervisor on Electrical Engineering Department, Faculty of Engineering, Damietta University.

July 2013 till Dec. 2018

Associate Professor at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt. Teaching the following courses:

- Undergraduate Level (Power System Protection, Transients, Power System Control, Power Quality, Electrical Measurements, High Voltage)
- Graduate Level (Power System Protection, Transients, Power System Control, Numerical Analysis and Simulation, Power Quality, High Voltage)

Oct. 2014 till Mar. 2016

Director of Scientific Computing Center, Mansoura University, Egypt.

Aug. 2008 till Jun. 2013

- Lecturer at Electrical Engineering Department, Faculty of Engineering, Mansoura University, Egypt. Teaching the following courses:
 - Undergraduate Level (Power System Protection, Transients, Power Quality)
- Graduate Level (Transients, Power Quality, High Voltage Technology, Protection devices Modeling)
- Vice president of Quality Assurance Unit of the Faculty of Engineering from 22 November

April 2008 till Jun. 2009 Part Time

Dean of the Alexandria Branch, Special Studies Academy, W U, Alexandria, Egypt.

Sept. 2004 to Aug. 2008

Head of the Technology Department, Special Studies Academy, WU, Ras-Elbar Section, and responsible for managing the Department, Supervising the teaching courses, Supervising the training (in workshops and industrial sites).

Also responsible for the new workshops layout, Preparation of Single Line Diagram, Protection Scheme Drawing, Designing of equipment arrangements, cable sizing, Load analysis, Earthing, Lighting, Protection, Control, Panels, and Cost estimation.

Sept. 2004 to April 2008

A Visiting lecturer with The Electrical Engineering Department, Faculty of Engineering, Mansoura University to teach the following courses:

- B.Sc. Projects (Transients & Power Quality)
- High Studies (M.Sc.; Transients, Power Quality, and Protection devices Modeling)

Sept. 1999 to Sept. 2004

Assistant Lecturer with the Technology Department, Special Studies Academy, W U, Ras-Elbar Section.

Page 26 of 28

Dec. 1993 to Sept. 1999

Operation Engineer at Damietta Combined Cycle Power Plant (1200 MW), and engaged in:

- Indoor and Outdoor 220 kV GIS (AEG-Germany), Circuit Breakers, Isolators, Control Panels, Transformers, Bushing, Current & Voltage Transformers, Gas Devices, Towers, Bus Ducts, Protection Devices, Earthing, Lightening System, Lighting System, and their auxiliaries,
- Indoor and Outdoor 66 kV GIS (AEG-Germany), Circuit Breakers, Isolators, Control Panels, Transformers, Bushing, Current & Voltage Transformers, Gas Devices, Towers, Bus Ducts, Protection Devices, Earthing, Lightening System, Lighting System, and their auxiliaries,
- Medium (6.6 kV) and Low Voltage (400 V) AC Distribution Systems, Feeders, Circuit Breakers, Transformers, Protection, and their auxiliaries,
- DC Distribution System (120 V & 48 V), Rectifiers, Batteries, and UPS.
- Gas Turbine Generation Unit (SIEMENS-V94) (10.5 kV, 152 MVA), Turbine, Compressor, and Generator.
- Emergency Diesel Generator (CATERPILLER) with air starting, (6.6 kV, 2.4 MW),
- Steam Turbine Generation Unit (GEC-ALSTHOM), (11.5 kV, 175MVA), Turbine, Condenser, and Generator
- Boilers, Heat Recovery Steam Generators, (250 Ton Steam/Hr), HV Pumps, Circuit Breakers, Evaporator,
- The Combined Cycle Power Plant Operation from DCS

Nov. 1992 to Dec. 1993

Teaching assistant with The Electrical Engineering Department, Faculty of Engineering, El-Mansoura University.

Page 27 of 28

Consultants

Consultant member in the following:

- **O** Ebrahim A. Badran, et al. "Building 1 and 4 Halls of Faculty of Engineering Electrical Replacement", Mansoura University, Mansoura, October, 2011.
- **O** Ebrahim A. Badran, et al. "Talkha 750 MVA Combined Cycle Power Station Generator Stator Winding Failure Analysis", Talkha, Meddle Delta for Electricity Production, March, 2012.
- **O** Ebrahim A. Badran, et al. "Industrial Zone in New Damietta Power Quality Problems", North Delta Electricity Distribution Company, NDEDC, March, 2012.
- O Ebrahim A. Badran, et al. "Damietta Port New Synchro-lift Design", Damietta Port, May, 2012.
- **O Ebrahim A. Badran**, et al. "Talkha 210 MVA Steam Power Station 3 GVA Motor Failure Analysis", Talkha, Meddle Delta for Electricity Production, June, 2012.
- O Ebrahim A. Badran, et al. "Conference Hall of Main Building of Mansoura University", Mansoura University, Mansoura, October, 2012.
- O Ebrahim A. Badran, et al. "Celebration Hall of Hotel of Mansoura University", Mansoura University, Mansoura. November. 2012.
- **O** Ebrahim A. Badran, et al. "Design of Damietta Univ. Buildings Collage of Commerce", Damietta University, Dumiat, 2015.
- **O Ebrahim A. Badran**, et al. "Design of Damietta Univ. Buildings Lab. Building", Damietta University, Dumiat, 2016.
- O Ebrahim A. Badran, et al. "Supervision of Damietta Univ. Infrastructure", Damietta University, Dumiat, 2016-2020.
- **O Ebrahim A. Badran**, et al. "Supervision of Damietta Univ. 4-Collage Buildings", Damietta University, Dumiat, 2018-2020.
- O Ebrahim A. Badran, et al. "Supervision of Damietta Univ. Main Building", Damietta University, Dumiat, 2018-2020.
- O Ebrahim A. Badran, et al. "Design and Supervision of HAVANA Project Electromechanics", New-Damietta, Dumiat, 2020.
- **O Ebrahim A. Badran**, et al. "Supervision of Students Hospital Improvement", Mansoura University, Mansoura, May 2022 till date.
- **O Ebrahim A. Badran**, et al. "Supervision of Faculty of Medicine Improvement", Mansoura University, Mansoura, June 2022 June 2023.
- O Ebrahim A. Badran, et al. "Supervision of Children Hospital Improvement", Mansoura University, Mansoura, June 2022 till date.
- **O Ebrahim A. Badran**, et al. "Design of Surgery Department in Children Hospital", Mansoura University, Mansoura, Jan, 2023.