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JOB OBJECTIVE

Seeking a position where I can collect between my academic knowledge and industrial life, gaining a higher experience that would develop my knowledge and my technical skills in a higher professional environment.

PERSONAL INFORMATION

- Citizenship : Egyptian
- Marital Status : Married (+3)
- Date of Birth : June 8th, 1989
- Place of Birth : Cairo, Egypt
- Military Service : Completed

RESEARCH INTEREST

- Renewable energy
- Power System Dynamics: Stability &Control
- Predictive Control
- Decentralized control of large scale systems
- Neural Networks and Fuzzy Logic
- Artificial Intelligence Techniques
- Wind Energy Conversion Systems (WECs)

EDUCATION

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|------------------|--|---------------------|
| 2014-2017 | Dept. of Electrical Engineering, Benha University
Ph. D. in Electrical Power Systems
Dissertation Title: Application of Artificial Intelligence and Modern Evolutionary Techniques on Load Frequency Control of Power Systems. | Cairo, Egypt |
| 2011-2014 | Dept. of Electrical Engineering, Benha University
M. Sc. in Electrical Power Systems
Dissertation Title: Decentralized Control of Multi-Area Power Systems | Cairo, Egypt |

2006-2011 Faculty of Engineering at Shoubra, Benha University **Cairo, Egypt**
B. Sc. in Electrical Engineering
Degree of each B.Sc. year: Excellent
Overall Grade of B.Sc. : Excellent with degree of honor
[89.72%]
Arrangement : I was the 2nd of the class

WORK EXPERIENCE

2017-till **Faculty of Engineering, Benha University** **Cairo, Egypt**
Assistant Professor at Electrical Engineering Department. Teaching and developing power system control courses, developing lab manuals, supervising postgraduate and undergraduate students and participating in the exam works.
Courses Taught: Electric Circuits I &II, Power system analysis I & II, Automatic Control Systems I &II, Signals &Systems, Electric Power Measurements &Testing, Computer Applications in Power Systems, Fuzzy Logic Control, Power System Dynamics, and Graduation Projects.

2017-till **Raafat consultant office** **Cairo, Egypt**
Consultant electromechanical engineer at Raafat consultant office.

2017-2018 **EDG consultant office** **Cairo, Egypt**
Consultant electromechanical engineer at EDG consultant office.

2014-2017 **Faculty of Engineering, Benha University** **Cairo, Egypt**
Assistant Lecturer at Electrical Engineering Department. Assisting in teaching fundamentals of electrical engineering, power systems and Control system engineering courses, developing course sheets, preparing laboratory experiments and participating in the exam works.
Courses Taught: Fundamentals of electrical engineering, Electric Circuits I & II, Properties of electric materials, Electromagnetic fields, Generation &Distribution of Electrical Power, Power Systems Analysis I & II, Measurements &Instrumentation, Computer Applications in Power Systems, Automatic Control Systems I &II, Economics of Electrical Power Generation &Distribution.

2011-2014 **Faculty of Engineering, Benha University** **Cairo, Egypt**
Demonstrator at Electrical Engineering Department. Assisting in teaching fundamentals of electrical engineering, power systems and Control system engineering courses, developing course sheets, preparing laboratory experiments and participating in the exam works.
Courses Taught: Fundamentals of electrical engineering, Electric Circuits I & II, Properties of electric materials, Electromagnetic fields, Generation

&Distribution of Electrical Power, Power Systems Analysis I & II, Measurements &Instrumentation, Computer Applications in Power Systems, Automatic Control Systems I &II, Economics of Electrical Power Generation &Distribution.

COURSES AND CERTIFICATES

- Local TOEFL TEST certificate (2012) with 503 grade.
- AutoCAD (2014) at shoubra faculty of engineering.
- Human Machine Interface (HMI) And WinCC Flexible (2010) at Siemens branch in Dokki.
- Programmable Logic Control (PLC) (2010) at Siemens branch in Dokki.
- Classical Control (2009) at Industrial Training Council (ITC).
- Electrical Installations (2009) at Industrial Training Council (ITC).
- Winding Electric Motors (2009) at Industrial Training Council (ITC).
- Shop drawing (2017) YouTube course.
- Etap (2017) YouTube course.
- Electrical Distribution self-study.
- ICDL certificate (2009).

AWARDS

- 2017** **Award of excellence in scientific research** for international publication from Benha University.
- 2016** **Award of excellence in scientific research** for international publication from Benha University.
- 2011** **ARE's President Award** for being ranked within the first ten Engineers in my faculty, Dec. 2011
- 2011** **Graduation Award** for being ranked the second in my class over five years, Faculty of Engineering, Benha University.
- 2006-2011** **Annual Excellence Award** for being ranked the first in my class, Faculty of Engineering, Benha University.

PROFESSIONAL ACTIVITIES

- Supervising 1 M.Sc. graduate students at Benha University.
- Editor at Artificial Intelligence Advances, Bilingual Publishing Co.
- Reviewer at IEEE Transactions on Industrial Informatics.
- Reviewer at IEEE Systems Journal.
- Reviewer at IEEE Transactions on Power Electronics.
- Reviewer at International Journal of Electrical Power & Energy Systems, Elsevier.
- Reviewer at IET Control Theory and Applications.
- Reviewer at Automatika, Taylor & Francis.

- Reviewer at Journal of Experimental & Theoretical Artificial Intelligence, Taylor & Francis.
- Reviewer at International Transactions on Electrical Energy Systems, Wiley.

PUBLICATIONS

- [1] M. Elsis, “Design of neural network predictive controller based on imperialist competitive algorithm for automatic voltage regulator,” *Neural Computing and Applications*, 2019. <https://doi.org/10.1007/s00521-018-03995-9>
- [2] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Design of Optimal Model Predictive Controller for LFC of Nonlinear Multi-area Power System with Energy Storage Devices,” *Electric Power Components and Systems*, 2019. <https://doi.org/10.1080/15325008.2018.1469056>
- [3] M. Elsis, “Future search algorithm for optimization,” *Evolutionary Intelligence*, 2018. <https://doi.org/10.1007/s12065-018-0172-2>
- [4] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Optimal Design of Model Predictive Controller with Energy Storage Devices for LFC of Nonlinear Multi-area Power System,” *Optimal Control Applications and Methods*, vol. 39, no. 1, pp. 263–280, 2018
- [5] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Model Predictive Control of Plug-in Hybrid Electric Vehicles for Frequency Regulation in a Smart Grid,” *IET Generation, Transmission & Distribution*, vol. 11, no. 16, pp. 3974-3983, 2017..
- [6] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Optimal design of model predictive control with superconducting magnetic energy storage for load frequency control of nonlinear hydrothermal power system using bat inspired algorithm,” *Journal of Energy Storage*, vol. 12, pp. 311-318, 2017.
- [7] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Bat inspired algorithm based optimal design of model predictive load frequency control,” *International Journal of Electrical Power & Energy Systems*, vol. 83, pp. 426-433, 2016.
- [8] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Multi-agent Model Predictive Control of Nonlinear Interconnected Hydro-Thermal System Load Frequency Control Based on Bat Inspired Algorithm,” *International Journal of Scientific Research Engineering Technology*, vol. 1, no. 5, 2015.
- [9] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “Model Predictive Control of Two-Area Load Frequency Control Based Imperialist Competitive Algorithm,” *TELKOMNIKA Indonesian Journal of Electrical Engineering*, vol. 16, no. 1, 2015.
- [10] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “ABC Based Design of PID Controller for Two Area Load Frequency Control with Nonlinearities,” *TELKOMNIKA Indonesian Journal of Electrical Engineering*, vol. 16, no. 1, 2015.
- [11] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, “GSA-Based Design of Dual Proportional Integral Load Frequency Controllers for Nonlinear Hydrothermal Power System,” *World Academy of Science, Engineering and Technology, International Journal*

- of Electrical, Computer, Energetic, Electronic and Communication Engineering*, vol. 9, no. 8, pp. 880-886, 2015.
- [12] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, "Model Predictive Control of Nonlinear Interconnected Hydro-Thermal System Load Frequency Control Based on Bat Inspired Algorithm," *International Electrical Engineering Journal (IEEJ)*, vol. 6, no. 7, pp. 1953-1961, 2015.
- [13] M. Elsis, M. Soliman, M. A. S. Aboelela, and W. Mansour, "Dual Proportional Integral Controller of Two-Area Load Frequency Control Based Gravitational Search Algorithm," *TELKOMNIKA Indonesian Journal of Electrical Engineering*, vol. 15, no. 3, pp. 397-406, 2015.
- [14] M. Elsis, M. Soliman, and W. Mansour, "Artificial Bee Colony Optimization of AGC in a Two-area Interconnected Power System," *16th International Middle- East Power Systems Conference -MEPCON'2014*.
- [15] M. Elsis, "Control Mechanisms of Energy Storage Devices" *intechopen, book chapter*, 2019.

REFERENCES

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