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PERSONAL INFORMATION	Date of Birth	November 12, 1984
	Gender	Male
	Nationality	Egyptian

ACADEMIC QUALIFICATIONS:

Visitor Researcher - Post-doctoral Fellowship Program at the Kyushu University, Japan
MIF (The Matsumae International Foundation, Japan - Research Fellowship Program 2019)
July 2019 to December 2019

Post-doctoral at the Department of Electric Power Systems, National research university "MPEI", Moscow Power Engineering Institute, Moscow, Russia.
September 2017, Mach 2018

PhD with specialization in Electrical Power and Machines Engineering (Electro-technical Complexes and Systems)

Institution	Dept. of Electric Drive and Automation of Industrial Units, Faculty of Mechatronics and Automation, Novosibirsk State Technical University, Novosibirsk – Russia
Dates Attended	From 5 March 2012 to 29 January 2015
Thesis	"Vector Control of Induction Machines Drives Based on Model Predictive Control"

Master of Electrical Engineering with specialization in Electrical Power and Machines Engineering

Institution	Electrical Eng. Dept., Minia University, Egypt
Dates Attended	From September 2008 to September 2009
Thesis	"Vector Control Of Induction Motor Taking Magnetic Saturation Into

Account"

Preparatory year (postgraduate for Master)

Institution	Minia University, Minia, Egypt
Dates Attended	From September 2007 to July 2008

Bachelor of Electrical Engineering with specialization in Power Systems and Electric Machines

Institution	Minia University, Minia, Egypt
Dates Attended	From September 2001 to May 2006
Grade	Very good with honor
Project	"Design, Applications and Control of Linear Induction Motors"
Grade	Distinction

PROFESSIONAL WORK EXPERIENCE

Assistant Professor at Electrical Engineering Department, Minia University, Egypt

Duration: April 2015 till now
Full-time
Responsibility:

- **Teaching and conducting laboratory of electrical power and machines related subjects:**

— Automatic control(3rd Year Electrical Engineering)

— Selective Course (PLC) (3rd Year Electrical Engineering)

— PLC, Drives, SCADA systems – SIEMENS (4th Year Electrical Power & Machines)

— PLC, Drives, SCADA systems – SIEMENS (3rd Year Electrical Power & Machines)

— Lab. of Tractions and Machine Drives (Siemens Lab.)

— Electric Machines (3rd Year Electrical Engineering - Electrical Power & Machines)

— Electrical Measurements (2cd Year Electrical Engineering)

— Application of programming Languages in Electrical Power (3rd Year Electrical Power & Machines)

— Programming Language (1st year Electrical Engineering)

— Electrical and Electronics Measurements (2cd Year Biomedical Engineering)

— Electrical Machines and power networks (2cd Year Power and Energy Engineering)

— Electrical Engineering (1st year Power and Energy Engineering and Production Engineering)

— Electrical Tests (3rd Year Electrical Power & Machines)

— Electrical Tests (4th Year Electrical Power & Machines)

- **For Post-Graduated Students**

— Automatic control (Post-graduate course)

— Electrical Machines (Post-graduate course)

— Selective course (Application of Matlab/Simulink for control systems) (Post-graduate course)

- **Supervisor of Master and PhD Students**

Assistant Professor at Mechatronics Department, El-Minia High Institute of Engineering and Technology, Egypt
Duration: 2015-2018 **Part-time**
Responsibility:

- Teaching and conducting laboratory of electrical power and machines related subjects:
- Lab. of Tractions and Drives (PLC and SCADA systems - Siemens Lab.)
- Computer Controlled Experimentation
- Designing Smart Machines
- Energy and Electromechanical Systems Lab

Assistant Professor at Higher Technological Institute Tenth of Ramadan city, Department of Mechanical Engineering, Egypt
Duration: 2015-2016 /2016-2017 **Part-time**
Responsibility:

- Teaching and conducting laboratory of electrical power and machines related subjects:
- Measurements and Measurements
- Automatic control
- Modelling and simulation

PhD Fellow at Novosibirsk State Technical University, Novosibirsk – Russia
Duration: April 2012 to January 2015
Responsibility:

- Developing a novel control system for controlling the speed, current and rotor flux in induction motor (IM) drive based on model predictive control. The systems is applied for control the rotor speed in indirect vector control of IM drive and for control the current, rotor flux and speed in direct vector control of IM drive.
- Developing algorithm for speed sensorless vector control of IM using full order observer with estimation the speed and stator resistance.
  - Implementation the full drive of induction motor in the Laboratory and getting the experimental results to validate the control system. (Texas instruments, Code composer studio ccsv5 and implementation from Simulink/Matlab.)
- Teaching
  - Practical Exercises and Conducting Laboratory "AC and DC drives" (Graduate Courses)

PhD Fellow at Kazan State Power Engineering University, Kazan – Russia
Duration: April 2011 to April 2012
Responsibility:

- PHD follow
- Russian Language course
- courses of PhD

Assistant Lecturer at Electrical Engineering Department, Minia University, Egypt
Duration: October 2009 to April 2011
Responsibility:

- Developing the indirect field oriented control of induction motor drive to take the effect of

magnetic saturation in to account.

- Teaching and conducting laboratory of electrical power and machines related subjects:

— Lab. of Tractions and Drives (PLC and SCADA Systems) (SIEMENS Lab.)
— Electric Machines (2nd Year Electrical Engineering)
— Electrical Machines Design (4th Year Electrical Power & Machines Section)
— Power Electronics(4th Year Electrical Power & Machines Section)
— Electrical Machines (2nd Year Mechanical Power & Energy Engineering)
— PLC Programming (3rd Year Communication & Electronics Engineering, 3rd Year Electrical Power & Machines)
— Electronic Measurements (3rd Year Communication & Electronics Engineering , 3rd Year Electrical Power & Machines)

Teaching Assistant at Electrical Engineering Department, Minia University, Egypt
Duration April 2007 to October 2009
Responsibility:
Developing AC drive system based on sliding mode control and Neural Network algorithms.
Developing a Neural Network algorithm for applying in AC drives.

Teaching and conducting laboratory of electrical power and machines related subjects:

— Lab. of Tractions and Drives (PLC - Siemens Lab.)
— Electric Machines (2nd Year Electrical Engineering)
— Electrical Machines Design (4th Year Electrical Power & Machines Section)
— Power Electronics(4th Year Electrical Power & Machines Section)
— Electrical Tests (4th Year Electrical Power & Machines)
— Electrical Machines (2nd Year Mechanical Power & Energy Engineering)
— PLC Programming (3rd Year Communication & Electronics Engineering)

Supervising Thesis

M.Sc.:	1- Mohammed Abdeen ("Determination of Induction Motor Parameters for Predictive Maintenance" , AL-AZHAR UNIVERSITY), 2016
	2- Ahmed Khaled (" Induction Motor Parameter Estimation and it's Effect on Motor's Efficiency during It's Work with Variable Speed Drive", AL-AZHAR UNIVERSITY), 2017
	3- Mohammed Elnagi (Advance Control of Photovoltaic Pumping System, AL-AZHAR UNIVERSITY), 2018
Ph.D.	1- Ashraf Abdelhamid (Applications of new control techniques in Electrical power system, Minia University), 2018.
Senior Level Graduation Projects:	

RESEARCH PROJECTS:

April 2012 till 2015 — Certificate of an active participant in the research project: Investigation of the utmost precision of optical methods of measurement of motion parameters and mechatronic methods of motion control and

development of new robotic and electromechanical systems
The research project which has been supported the Ministry of Education and Science of the Russian Federation (Project no 7.559.2011, state registration number of scientific research works 01201255056); Novosibirsk State Technical University, Novosibirsk – Russia

3/2019 till now STDF "Design and Implementation of a Model Predictive Control of a Small Scale Direct-Driven PMSG Wind Power Generation System."

ACADEMIC HONORS AND AWARDS:

1. Top Student at Electrical Engineering Department, Electrical Power and Machines Section 2006.
2. PhD Scholarship from the Egyptian Government and Russian Government, to perform the PhD study in Novosibirsk State Technical University, Russian Federation. (April 2011 – November 2014).
3. Award of international publication (IF ISI Web of Science | Thomson Reuters) from Minia University, Minia, Egypt (2015-2016).
4. Award of international publication (IF ISI Web of Science | Thomson Reuters) from Minia University, Minia, Egypt (2017-2018).
5. Post-doctoral Scholarship from the Egyptian Government and Russian Government, to perform the research in National research university "MPEI", Moscow Power Engineering Institute, Moscow, Russia. (2017-2018).

MEMEBERSHIP AND PROFFESIONAL ACTIVITIES:

- IEEE member
- International Journal of Engineering Trends and Technology (IJETT), ISSN: 2231-5381. www.ijettjournal.org. published by seventh sense research group
- Editorial Board Member and Reviewer of International Journal of Electrical and Electronic Science, The American Association for Science and Technology (AASCIT) http://www.aascit.org, ISSN: 2375-2998.
- Member, Quality Assurance and Accreditation Center, Faculty of Engineering, Minia University
- Member, Graduate Studies and Research Committee, Faculty of Engineering, Minia University.
- Member Council of Electrical Engineering Department, Faculty of Engineering, Minia University.
- Member, Laboratory Committee, Faculty of engineering, Minia University.
- Member, Quality Assurance & Accreditation Office of Faculty of Engineering, Minia University, Egypt.
- Member, IEEE conference Committee at MPI, Russia
- Member, Minia University faculties club.

PUBLICATIONS AND RESEARCH ACTIVITIES:

Books:

1- Ahmed Abdel-Hamid Zaki Diab, Yehia Sayed Mohamed, Ahmed Mohamed El-Sawy, Vector control of induction motors considering magnetic saturation (Parameter estimation of sensorless drive system)

Publisher: LAP Lambert Academic Publishing, SBN-13: 978-3-659-15999-2, June 2012, 152 pages.

2- Model predictive control of Induction Machines drives, Novosibirsk State Technical University, Publishing House of NSTU, Novosibirsk – Russia, 2017. – 175 c. ISBN 978-5-7782-3285-3.

Patent and Registered Programs:

1- Application of a new hybrid optimization algorithm (PSOGSA) for optimal allocation of renewable energy sources (RES) in electrical distribution networks, The registration number of the patent in the Russian database is RU 2018611008 dated 22.01.2018, **Russia, Federal Institute of Industrial Property (FIPS),**
http://www1.fips.ru/fips_servl/fips_servlet?DB=EVM&DocNumber=2018611008&TypeFile=html

2- Design and implementation of a novel sensorless vector control scheme of Asynchronous Motors based on Model Predictive Control (MPC) and an adaptive full order observer, The registration number of the patent in the Russian database is RU 2015612503 dated 19.02.2015. **Russia, Federal Institute of Industrial Property (FIPS),**
http://www1.fips.ru/fips_servl/fips_servlet?DB=EVM&DocNumber=2015612503&TypeFile=html

3- Optimizing the capacity of hybrid power grid power stations based on metaheuristic algorithms with Renewable Energy Sources, The registration number of the patent in the Russian database is RU 2019614060 dated 27.03.2019. **Russia, Federal Institute of Industrial Property (FIPS),**
http://www1.fips.ru/fips_servl/fips_servlet?DB=EVM&DocNumber=2019614060&TypeFile=html

4- The program for determining the Optimal Placements of renewable energy sources and batteries of static capacitors in Electrical distribution networks based on the MFO optimization algorithm. The registration number of the patent in the Russian database is RU 2018613738 dated 21.03.2018. Russia, Federal Institute of Industrial Property (FIPS),
http://www1.fips.ru/fips_servl/fips_servlet?DB=EVM&DocNumber=2018613738&TypeFile=html

Journal Papers: (Bold format is for International journals Publications)

1- **I.S. MOHAMED, S. ROVETTA, T.D. DO, T. DRAGI, and AHMED A. ZAKI DIAB, "A Neural-Network-Based Model Predictive Control of Three-Phase Inverter with an Output LC Filter." IEEE Access. 2019. Under publication.**
2- **Ahmed A. Zaki Diab, H. M. Sultan, I. S. Mohamed, K. O. N and T. D. Do, "Application of Different Optimization Algorithms for Optimal Sizing of PV/Wind/Diesel/Battery Storage Stand-Alone Hybrid Microgrid," in IEEE Access, 2019. doi: 10.1109/ACCESS.2019.2936656**
3- **Ahmed A. Zaki Diab, MPPT of PV System Under Partial Shading Conditions Based on Hybrid Whale Optimization-Simulated Annealing Algorithm (WOSA), book chapter, Springer, Modern Maximum Power Point Tracking Techniques for Photovoltaic Energy Systems, Green Energy, Technology, 2019, ISBN: 978-3-030-05577-6.**
4- **Mohamed, M.A., Diab, A.A.Z., Rezk, H., Jin T., A novel adaptive model predictive controller for load frequency control of power systems integrated with DFIG wind turbines, Neural Comput & Applic (2019). https://doi.org/10.1007/s00521-019-04205-w**
5- **Diab, Ahmed A. Zaki, Abou-Hashema M. El-Sayed, Hossam Hefnawy Abbas, and Montaser Abd El Sattar. "Robust Speed Controller Design Using H_infinity Theory for High-Performance Sensorless Induction Motor Drives." Energies 12, no. 5 (2019): 961. https://doi.org/10.3390/en12050961**
6- **Sultan, Hamdy M., Ahmed A. Zaki Diab, Oleg N. Kuznetsov, Ziad M. Ali, and Omer Abdalla "Evaluation of the Impact of High Penetration Levels of PV Power Plants on the Capacity, Frequency and Voltage Stability of Egypt's Unified Grid." Energies 12.3 (2019): 552.**

https://doi.org/10.3390/en12030552
7- MA Tolba, AA Zaki Diab, AS Vanin, VN Tulsky Integration of Renewable Distributed Generation in Distribution Networks Including a Practical Case Study Based on a Hybrid PSOGSA Optimization Algorithm - Electric Power Components and Systems, 2019 https://doi.org/10.1080/15325008.2018.1532470
8- Mohamed A. Tolba, Ahmed A. Zaki Diab, Artem S. Vanin, Vladimir N. Tulsky & Almoataz Y. Abdelaziz (2019) Integration of Renewable Distributed Generation in Distribution Networks Including a Practical Case Study Based on a Hybrid PSOGSA Optimization Algorithm, Electric Power Components and Systems, DOI: 10.1080/15325008.2018.1532470
9- Tolba, M.; Rezk, H.; Diab, A.A.Z.; Al-Dhaifallah, M. A Novel Robust Methodology Based Salp Swarm Algorithm for Allocation and Capacity of Renewable Distributed Generators on Distribution Grids. Energies 2018, 11, 2556. https://doi.org/10.3390/en11102556
10- Mohamed Mohamed A., Ahmed A. Zaki Diab, and Hegazy Rezk. "Partial Shading Mitigation of PV Systems via Different Meta-Heuristic Techniques." Renewable Energy, Renewable energy 130 (2019): 1159-1175. https://doi.org/10.1007/s40998-018-0071-7
11- Sultan H. M. et al. Design and evaluation of PV-wind hybrid system with hydroelectric pumped storage on the National Power System of Egypt //Global Energy Interconnection. – 2018. – Т. 1. – №. 3. – С. 301-311. sciencedirect
12- Diab, Ahmed A. Zaki, and Hegazy Rezk. "Optimal Sizing and Placement of Capacitors in Radial Distribution Systems Based on Grey Wolf, Dragonfly and Moth–Flame Optimization Algorithms." Iranian Journal of Science and Technology (Springer), Transactions of Electrical Engineering: 1-20, (2018). https://doi.org/10.1007/s40998-018-0071-7
13- Tul'skii, V. N., A. S. Vanin, M. A. Tolba, and AA Zaki Diab. "Arrangement of Reactive Power Compensation Units in the Radial Distribution Network of Moscow Oblast." Russian Electrical Engineering 89, no. 6 (2018): 402-408. DOI: 10.3103/S106837121806010X
14- Tolba, M.A., Diab, A.A.Z., Tulsky, V.N., Almoataz Y.A., LVCI approach for optimal allocation of distributed generations and capacitor banks in distribution grids based on moth–flame optimization algorithm, Electrical Engineering (2018), 09 March 2018, https://doi.org/10.1007/s00202-018-0684-x
15- Tolba, M.A.; Rezk, H.; Tulsky, V.; Diab, A.A.Z.; Abdelaziz, A.Y.; Vanin, A. Impact of Optimum Allocation of Renewable Distributed Generations on Distribution Networks Based on Different Optimization Algorithms. Energies 2018, 11, 245. https://doi.org/10.3390/en11010245
16- Tolba, M.A., Zaki Diab, A.A., Tulsky, V.N. and Almoataz Y. Abdelaziz, "VLCI approach for optimal capacitors allocation in distribution networks based on hybrid PSOGSA optimization algorithm", Neural Comput & Applic (2018). https://doi.org/10.1007/s00521-017-3327-7
17- Ahmed A Zaki Diab, Hegazy Rezk, "Global MPPT based on flower pollination and differential evolution algorithms to mitigate partial shading in building integrated PV system", Solar Energy, Volume 157, Pages 171-186, 2017. https://doi.org/10.1016/j.solener.2017.08.024
18- Ahmed A. Zaki Diab, "Novel robust simultaneous estimation of stator and rotor resistances and rotor speed to improve induction motor efficiency", Int. J. of Power Electronics, 2017 Vol.8, No.4, pp.267 – 287, 2017. https://doi.org/10.1504/IJPELEC.2017.085197
19- AAZ Diab, Robust simultaneous estimation of stator and rotor resistances and rotor speed for predictive maintenance of sensorless induction motor drives, Inderscience Publishers (IEL), International Journal of Power and Energy Conversion, Vol. 8, Issue 4, pp. 411-4342017.

https://doi.org/10.1504/IJPEC.2017.087325

20- **Diab AAZ, Abdeen ME, Elwany MA, Hassaneen BM (2016) Rotor Resistance Estimation for Predictive Maintenance of Sensorless Induction Motor Drives. J Electr Eng Electron Technol 5:2. doi:10.4172/2325-9833.1000126., 2016.**

21- **AAZ Diab, Implementation of a novel full-order observer for speed sensorless vector control of induction motor drives", Electrical Engineering 99 (3), 907-921, 2016. https://doi.org/10.1007/s00202-016-0453-7**

22- **Tarek Hassan Mohamed , Ahmed A. Zaki Diab and Mahmoud M. Hussein, "Application of Linear Quadratic Gaussian and Coefficient Diagram Techniques to Distributed Load Frequency Control of Power Systems", journal of Appl. Sci., 2015, 5, 1603-1615; doi:10.3390/app5041603**

23- **Ahmed A. Z. Diab, "Real-Time Implementation of Full-Order Observer for Speed Sensorless Vector Control of Induction Motor Drive", Springer, Journal of Control, Automation and Electrical Systems, December 2014, Volume 25, Issue 6. –pp 639-648, DOI: 10.1007/s40313-014-0149-z.**

24- A. M. El-Sawy, Yehia S. Mohamed and **A. A. Zaki** "Speed-Sensorless Vector Controlled Induction Motor Drive Taking Saturation into Account", Journal of Engineering Science, Assiut University, Vol. 37, No. 5, pp. 1109-1124, September, 2009. http://www.aun.edu.eg/journal_files/27_J_1779.pdf .

25- Yehia S. Mohamed, A. M. El-Sawy and A. A. Zaki "Stator Resistance Estimation for Speed Sensorless Vector Controlled Induction Motor Drives As Influenced by Saturation", Journal of Engineering Science, Assiut University, Vol. 37, No. 3, pp. 669-690, May, 2009. http://www.aun.edu.eg/journal_files/21_J_8758.pdf.

26- Yehia S. Mohamed, A. M. El-Sawy, A. A. Zaki "Rotor Resistance Estimation for Speed Sensorless Vector Controlled Induction Motor Drive Taking Saturation Into Account" Journal of Engineering Science, Assiut University, Vol. 37, No. 2, pp.399-419, March, 2009. http://www.aun.edu.eg/journal_files/20_J_384.pdf.

27- A. M. El-Sawy, Yehia S. Mohamed, A. A. Zaki "Stator Resistance and Speed Estimation for Induction Motor Drives As Influenced by Saturation", The Online Journal on Electronics and Electrical Engineering (OJEEE), Vol. (3) – No. (2), pp. 416-424. http://www.infomesr.org/attachments/31-113.pdf.

28- **Diab A.A.Z., Pankratov V.V., Kotin D.A., Direct vector control of induction motor drives using model predictive control, Engineering journal of Don, ISSN: 2073-8633,**

http://www.ivdon.ru/ru/magazine/archive/n1y2014/2247, http://elibrary.ru/item.asp?id=21804396.

29- **N. Andreev, A. A Salam Ali, Diab Ahmed A.Z. "Speed Estimation of Induction Motor with Model Reference Adaptive System Based on Neural Network." Magazine of Power Tatarstan, 2012, №2-26. pp. 57-61. http://elibrary.ru/item.asp?id=17841702.**

30- **Vdovin V.V., Diab A.A.Z., Kotin D.A., Pankratov V.V., "Synthesis of coordinates identificator for sensorless induction motor drive", SCIENCE BULLETIN OF THE NOVOSIBIRSK STATE TECHNICAL UNIVERSITY, ISSN 1814-1196, 2014, №1 (54)., pp. 5 – 17. https://journals.nstu.ru/vestnik/download_article?id=2201**

Conference Papers:

31- Aljendy, Raseel I., Rinat R. Nasyrov, Hamdy M. Sultan, and Ahmad A. Zaki Diab "Bio-inspired Optimization Techniques for Compensation Reactive Power and Voltage Profile Improvement in the Syrian Electrical Distribution Systems." 2019 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (EIConRus). IEEE, 2019. 10.1109/EIConRus.2019.8656900

32- Kuznetsov, Oleg N., Hamdy M. Sultan, Raseel I. Aljendy, and Ahmed A. Zaki Diab. "Economic Feasibility Analysis of PV/Wind/Diesel/Battery Isolated Microgrid for Rural Electrification in South Egypt." 2019 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (EIConRus). IEEE, 2019. **DOI:** 10.1109/EIConRus.2019.8656764

33- Mahmoud, Mohamed Elsayed Elnagi, Ahmed A. Zaki Diab, and Denis A. Kotin. "Simulation and Experimental Validation of Two-Diode Model of Photovoltaic (PV) Modules." 2018 XIV International Scientific-Technical Conference on Actual Problems of Electronics Instrument Engineering (APEIE). IEEE, 2018. https://doi.org/10.1109/APEIE.2018.8546293

34- Omara, A.M., Sleptsov, M. and Diab, A.A.Z., 2018, January. Cascaded fuzzy logic based direct torque control of interior permanent magnet synchronous motor for variable speed electric drive systems. In Electric Drives: Optimization in Control of Electric Drives (IWED) Moscow, Russia, 2018 25th International Workshop on (pp. 1-6). IEEE. https://doi.org/10.1109/IWED.2018.8321386

35- A. A. Z. Diab, "Model Predictive Direct Power Control of Rotor Side Converter for DFIGs Driven by Variable Speed Wind Turbines," 2018 25th International Workshop on Electric Drives: Optimization in Control of Electric Drives (IWED), Moscow, 2018, pp. 1-6. doi: 10.1109/IWED.2018.8321368

36- A. A. Z. Diab and M. A. El-Sattar, "Adaptive model predictive based load frequency control in an interconnected power system," 2018 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (EIConRus), Moscow, 2018, pp. 604-610. doi: 10.1109/EIConRus.2018.8317170

37- Sultan H. M., Kuznetsov O. N., Diab A. A. Z. Modelling and performance evaluation of the Egyptian national utility grid based on real data //Young Researchers in Electrical and Electronic Engineering (EIConRus), 2018 IEEE Conference of Russian. – IEEE, 2018. – С. 807-812. DOI: 10.1109/EIConRus.2018.8317213

38- Sultan H. M., Kuznetsov O. N., Diab A. A. Z. Site selection of large-scale grid-connected solar PV system in Egypt //Young Researchers in Electrical and Electronic Engineering (EIConRus), 2018 IEEE Conference of Russian. – IEEE, 2018. – С. 813-818. DOI: 10.1109/EIConRus.2018.8317214

39- Rinat.R. Nasyrov, Raseel Aljendy, “Comprehensive comparison between hybrid fuzzy-PI and PSO-PI controllers based active power filter for compensation of harmonics and reactive power under different load conditions,” IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (ElConRus), Moscow,2018,pp.725–730. https://doi.org/10.1109/EIConRus.2018.8317195

40- Rinat.R. Nasyrov, Raseel Aljendy and Ahmed A. Zaki Diab, “Adaptive PI controller of active power filter for compensation of harmonics and voltage fluctuation based on particle swarm optimization (PSO),” IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering

(ElConRus), Moscow,2018, pp.719 – 724. https://doi.org/10.1109/EIConRus.2018.8317194

41- Aziz A. G. M. A., Diab A. A. Z., El Sattar M. A. Speed sensorless vector controlled induction motor drive based stator and rotor resistances estimation taking core losses into account //Power Systems Conference (MEPCON), 2017 Nineteenth International Middle East. – IEEE, 2017. – C. 1059-1068. DOI: 10.1109/MEPCON.2017.8301313

42- Ahmed A. Zaki Diab, Mohamed A. Tolba and Vladimir N. Tulsky, "A new hybrid PSOGSA algorithm for optimal allocation and sizing of capacitor banks in RDS", IEEE Conference of Russian, Young Researchers in Electrical and Electronic Engineering (EIConRus), 1-3 Feb., pp. 1496-1501, St. Petersburg, Russia, 2017. https://doi.org/10.1109/EIConRus.2017.7910857

43- Ahmed A. Zaki Diab, Vladimir N. Tulsky, and Mohamed A. Tolba, "Optimal Shunt Capacitors Sittings and Sizing in Radial Distribution Systems Using a Novel Hybrid Optimization Algorithm", IEEE Conference, Proceedings of MEPCON'2016, 27-29 December, Helwan University, Egypt, 2016. https://doi.org/10.1109/MEPCON.2016.7836929

44- Mohamed A. Tolba, Vladimir N. Tulsky, and Ahmed A. Zaki Diab, "Optimal allocation and sizing of multiple distributed generators in distribution networks using a novel hybrid particle swarm optimization algorithm", IEEE Conference of Russian, Young Researchers in Electrical and Electronic Engineering (EIConRus), 1-3 Feb., pp. 1606-1612, St. Petersburg, Russia, 2017. https://doi.org/10.1109/EIConRus.2017.7910880

45- Vladimir N. Tulsky, Mohamed A. Tolba, Ahmed A. Zaki Diab, Ali A. Radwan and Omar M. Foly, "Measurement and analysis of an electric power distribution system with optimal reactive power compensation for improving the power quality. Case study: Middle Egypt region", IEEE Conference of Russian, Young Researchers in Electrical and Electronic Engineering (EIConRus), 1-3 Feb., St. Petersburg, Russia, pp. 1613-1618, 2017. DOI: 10.1109/EIConRus.2017.7910881

46- Mohamed A. Tolba, Vladimir N. Tulsky, and Ahmed A. Zaki Diab, "Optimal sitting and sizing of renewable distributed generations in distribution networks using a hybrid PSOGSA optimization algorithm", IEEE 1st Industrial and Commercial Power System Europe, 17th IEEE International Conf. on Environment and Electrical Eng., IEEE-I&CPS/IEEE-EEEIC'17, Milan (Italy), Jun. 6-9, 2017. DOI: 10.1109/EEEIC.2017.7977441

47- Mohamed A. Tolba, Vladimir N. Tulsky, Artem S. Vanin and Ahmed A. Zaki Diab, "Comprehensive analysis of optimal allocation of capacitor banks in various distribution networks using different hybrid optimization algorithms", IEEE 1st Industrial and Commercial Power System Europe, 17th IEEE International Conf. on Environment and Electrical Eng., IEEE-I&CPS/IEEE-EEEIC'17, Milan (Italy), Jun. 6-9, 2017. DOI: 10.1109/EEEIC.2017.7977442

48- Diab A. A. Z. et al. Parallel estimation of rotor resistance and speed for sensorless vector controlled induction motor drive //Micro/Nanotechnologies and Electron Devices (EDM), 2016 17th International Conference of Young Specialists on. – IEEE, 2016. – C. 389-394. DOI: 10.1109/EDM.2016.7538763

49- V. Tulsky, A. Vanin, Mohamed A. Tolba, Ahmed A. Zaki Diab, "OPTIMAL CAPACITOR ALLOCATIONS IN RADIAL DISTRIBUTION NETWORKS USING A NOVEL – PARTICLE

SWARM OPTIMIZATION ALGORITHM", 7th International Scientific and Technical Conference, «Power Industry: Viewpoint of the Youth - 2016», CIGRE, September 19-23 2016, Kazan, Russian Federation.

50- V. Tulsky, A. Vanin, Mohamed A. Tolba, Ahmed A. Zaki Diab, "MEASUREMENT AND ANALYSIS OF RADIAL DISTRIBUTION SYSTEM WITH REACTIVE POWER COMPENSATION – CASE STUDY: MOSCOW REGION", 7th International Scientific and Technical Conference, «Power Industry: Viewpoint of the Youth - 2016», CIGRE, September 19-23 2016, Kazan, Russian Federation.

51- S. A. Selim, A. A. Z. Diab and B. E. Elnaghi, "Improved performance of brushless direct current motor," *2016 IEEE NW Russia Young Researchers in Electrical and Electronic Engineering Conference (EIConRusNW)*, St. Petersburg, 2016, pp. 671-675. https://doi.org/10.1109/EIConRusNW.2016.7448272

52- A.A. Z. Diab, S. A. Selim and B. E. Elnaghi, "Particle swarm optimization based vector control of permanent magnet synchronous motor drive," *2016 IEEE NW Russia Young Researchers in Electrical and Electronic Engineering Conference (EIConRusNW)*, St. Petersburg, 2016, pp. 740-746. https://doi.org/10.1109/EIConRusNW.2016.7448287

53- V. N. Tulsky, A. S. Vanin, M. A. Tolba, A. Y. Sharova and A. A. Z. Diab, " Study and Analysis of Power Quality for an Electric Power Distribution System – Case Study: Moscow Region," *2016 IEEE NW Russia Young Researchers in Electrical and Electronic Engineering Conference (EIConRusNW)*, St. Petersburg, 2016, pp. 710-716. https://doi.org/10.1109/EIConRusNW.2016.7448281

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COMMUNICATION JOB-RELATED SKILLS

- Good communication skills gained through my experience as a Demonstrator, **Assistant Lecturer and** Assistant Professor, Faculty of Engineering such as communicating with my supervisors, students and postgradueated researcher.
- Advanced research abilities.
- Typesetting with LaTeX (MikTeX and TeXstudio) for documents preparation.
- Good user of EndNote X7 Program for references management.
- Ability to work in a group or individually according to the job.
- Self-motivated.
- Eximpermantal and lab. Works (PLC, SCADA, HMI and Embeded Systems).

COMMUNICATION JOB-RELATED SKILLS:

- Embeded Systems:
- Development Tools from Texas Instruments & Code Composer Studio IDE Texas Instruments for real time implementation (progrramming with controlcards F28035, f 28335 and f28069)
- Programming with MATLAB/SIMULINK.
- Programming with Languages (VB, FORTRAN)
- PIC & Arduino Microcontroller programming and expirimantal Work.
- AUTOCAD
- Windows, Word, Excel, Access, PowerPoint, Internet (ICDL certificate)

- **PLC Programming and SCADA from Siemens.**

(Programmable Logic Controller "STEP 7 PLC course"	Human Machine Interface "WINCC Flexible course"
HMI SCADA "WINCC course"	Process Instrumentation "PI introduction course"
Process Instrumentation "PI introduction course"	Computerized Numerical Control basic "CNC basic course")

- Good communication skills gained through my experience as a Demonstrator, **Assistant Lecturer and** Assistant Professor, Faculty of Engineering such as communicating with my supervisors, students and postgradueated researcher.
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- Typesetting with LaTeX (MikTeX and TeXstudio) for documents preparation.
- Good user of EndNote X7 Program for references management.
- Ability to work in a group or individually according to the job.
- Self-motivated.
- Eximpermantal and lab. Works (PLC, SCADA, HMI and Embeded Systems).

LANGUAGE:

- Arabic (Mother Tongue)
- English (Excellent – Obtained TOEFL. ITP)
- Russian (Excellent)

Training and Courses:

- 7/2008-8/2008 Siemens Egypt

(Programmable Logic Controller "STEP 7 PLC course"	Human Machine Interface "WINCC Flexible course"
HMI SCADA "WINCC course"	Process Instrumentation "PI introduction course"
Process Instrumentation "PI introduction course"	Computerized Numerical Control basic "CNC basic course")

- 28/8/2007 - 30/8/2007 Faculty and Leadership Development project (FLDP)
  Course in How to Use Technology in Teaching (T3).
- 21/8/2007 - 23/8/2007 Faculty and Leadership Development project (FLDP)
  Course in Quality Assurance (D3).
- *3*/7/2004 - 2/8/2004 Middle Egypt Company for Electricity Distribution
  Summer training in Electrical power fields (Overhead T.L. - Power Transformers – CB – etc.).
- 2015 - 2017 Faculty and Leadership Development project (FLDP)
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