

PERSONAL
INFORMATION

Emad Gamel Shehata (E. G. Shehata)

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Sex Male | Date of birth 10/7/1980 | Nationality Egyptian

JOB APPLIED FOR
POSITION
PREFERRED JOB
STUDIES APPLIED FOR
PERSONAL STATEMENT

- 1- Vice dean for student affairs- Faculty of industry and energy- Misr International technology university (MITU).
- 2- Associated Professor at Electrical Engineering Dept.- Minia University.
- 3- National Expert at Educational development Fund (EDF)- Ministry Cabinet
- 4- PI of research Project No. 25810 funded by STDF.

WORK EXPERIENCE

2022

Vice dean for student affairs- Faculty of industry and energy- Misr International Technology University (MITU).

(2018 - Now)

National Expert at Educational development Fund (EDF)- Ministry Cabinet.
Giza – Egypt.

(2018-Now)

Supervisor of Electrical and solar power Dept.

Associated Professor at Electrical Engineering Dept.

Faculty of Engineering- Minia University (<https://www.mu.edu.eg>)

(2013-2018)

▪ Teaching courses related to Electric power and machines

Assistant Professor (Ph.D) at Electrical Engineering Dept.

Faculty of Engineering- Minia University- Egypt (<https://www.mu.edu.eg>)

(2007 - 2012)

▪ Teaching courses related to Electric power and machines and supervisor of final year projects.

Assistant Lecture (Ms.C.) at Electrical Engineering Dept.

Faculty of Engineering- Minia University- Egypt (<https://www.mu.edu.eg>)

(2002 - 2006)

▪ Teaching courses related to Electric power and machines

Administrator (Bs. C) at Electrical Engineering Dept.

Faculty of Engineering- Minia University (<https://www.mu.edu.eg>)

▪ Teaching courses related to Electric power and machines

EDUCATION AND
TRAINING

2014

Quality Assurance training courses

- 1- Program specifications and curriculum maps for higher education institutions.
- 2- Institutional self- evaluation for higher education.
- 3- External review for higher education institution

1997-2002

Bc. S. in Electrical Engineering

Electrical Engineering Dept., Minia University, Egypt.

Main courses

- Maths (3 courses)
- Electrical circuits (DC and AC circuits)
- Electromagnetic fields (static and magnetic fields)
- Electrical power (3 courses)
- Electrical machines (DC, AC machines and design of electric machines) (3 courses)
- Power electronics (2 courses)
- High voltage engineering
- Power system
- Protection
- Renewable energy
- Graduation Project

(Jul- Sep. 1999)
(Jul.- Sep. 2000)
(Jul.- Sep. 2001)

Orascom Company for Architecture, Egypt.

Residential installation in hotels and villas in El-Gouna

(Jul- Sep. 2000)

Abu-Korkas Sugar Factories, El Minia, Egypt.

Industrial installation (control and maintenance of electric motors)
Classical and PLC control

PERSONAL SKILLS

Mother tongue(s) Arabic

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	Independent User	Proficient User	Independent User	Independent User	Proficient User

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills ▪ Good communication skills gained through my experience in teaching.

Organisational / managerial skills

- Supervisor of four final year projects at faculty of Engineering – Minia University and South valley university. (graduation project)
- Supervisor of finished 5 Ms.C thesis.
- Supervisor of 6 finished Ph.D thesis
- Supervisor of 3 Ph. D. students and 4 Ms. C. students (Continue).

- Job-related skills**
- ***Course coordinator*** of Electric power engineering department (Power and machine section)- Faculty of Engineering, Minia University (2013-2016).

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Proficient user	Independent user	Proficient user

Levels: Basic user - Independent user - Proficient user

[Digital competences - Self-assessment grid](#)

ICDL certificate

- Good command of office suite (word processor, spread sheet, presentation software)
- Good command of simulation programming (Matlab/Simulink- Autocade 2D- ANSYS electromagnetic 2/3D).

Journal Publications	
	1. <u>E. G. Shehata</u> “Improved Power Control of DFIGs driven by Wind Turbine under Unbalanced Grid Voltage” Journal of electric engineering and technology (accepted), 2023.
	2. <u>Emad G Shehata</u> ; Ibrahim abdel_aziz; Y. S.Mohamad; Ahmed Abdelhamid Zaki Diab “High Performnace Control Of Permanent Magnet Synchronous Motor Under Different Modes Of Operation” Journal of advanced engineering trends (JAET), Volume 42, Issue 2, July 2023, Pages 245-255
	3. <u>Emad G Shehata</u> ; Mariem Y. William; Ahmed Abdel Tawab Hassan; Khalil Ibrahim “Development of a Controlled Semi-Active Prosthetic Ankle” Journal of advanced engineering trends (JAET), Volume 42, Issue 2, July 2023, Pages 155-161
	4. <u>E. G. Shehata</u> “Design of high efficiency low frequency wireless power transfer system for electric vehicle charging” Electrical Engineering, volume 104, p.p.1797–1809 (2022).
	5. Asmaa A. Ghany, Ahmed A. Zaki Diab, Abo-Hashima M. Elsayed, Yahia S. Mohamed, <u>E. G. Shehata</u> “Novel Approach of Constant Switching Frequency MPC for 3L-NPC Converter Based PMSG Wind Energy Conversion Systems with LVRT Capability” International Journal of Intelligent Engineering and Systems, Vol.15, No.3, 2022, pp. 281-293.
	6. Mariem Yassa, Khalil Ali Khalil Ibrahim, A. A. Hassan and <u>Emad Shehata</u> “Development and control of a Controlled Semi-Active Prosthetic Ankle” Journal of Advanced Engineering Trends, January 2022
	7. <u>E. .G. Shehata</u> “A comparison between conventional and flux-intensifying interior permanent magnet synchronous machines” Int Trans Electr Energy Syst. 2021;e12826.
	8. <u>E. .G. Shehata</u> “Design of high efficiency low frequency wireless power transfer system for electric vehicle charging” Electrical Engineering, https://doi.org/10.1007/s00202-021-01436-w
	9. Ibram Y. Fawzy, Yehia S. Mohammed, <u>E. G. Shehata</u> , Montaser Abd El Sattar “ A Modified Perturb And Observe Technique For Mppt Of Integrated PV System Using Dc-Dc Boost Converter” Journal Of Advanced Engineering, Vol. 40, No. 1. January 2021.
	10. Basama Abd El-Rahman, <u>E. G. Shehata</u> , Abou-Hashima El-Sayed, Y. S.Mohamad “ Performance Analysis Of Active Power Filter Controllers For Harmonics Mitigation In Power Systems” Journal Of Advanced Engineering Trends (Jaet), Vol. 39, No. 1. January 2020.
	11. <u>Emad G. Shehata</u> , Maged S. Gaber, Khalil Ali Ahmed and Gerges M. Salama “Implementation of an energy management algorithm in DC-MGs using multi-agent system” Intentional Transaction on Electrical Energy System, 2019;29:e2790.
	12. M.Elzalik , Hegazy Rezk , <u>E.G.Shehata</u> ,Jean Thomas and R.Mostafa “ INC-MPPT Algorithm for Maximizing Energy Conversion Efficiency of Thermoelectric Generating System” Engineering Research Journal 162 (June 2019) M34 – M49.
	13. Mohamed Elzalik, Hegazy Rezk, Ramadan Mostafa, Jean Thomas, <u>Emad Gameil Shehata</u> “An experimental investigation on electrical performance and characterization of thermoelectric generator” Int J Energy Res. 2019;1–16.
	14. Asmaa A. Ghany, <u>E. G. Shehata</u> , Abo-Hashima M. Elsayed, Yahia S. Mohamed, Hassan Haes Alhelou, Pierluigi Siano, and Ahmed A. Zaki Diab “Novel Switching Frequency FCS-MPC of PMSG for Grid-Connected Wind Energy Conversion System with Coordinated Low Voltage Ride Through” Electronics 2021, 10, 492. https://doi.org/10.3390/electronics10040492 , pp. 1-22.
	15. Mohamed A. Ghalib, <u>E. G. Shehata</u> , Jean Thomas, R. M. Mostafa “Adaptive droop control for high-performance operation in low-voltage DC microgrids” Electrical Engineering, https://doi.org/10.1007/s00202-019-00869-8
	16. Dalia Rabie, Tomonobu Senjyu, Salem Alkhalaf , Yahia S. Mohamed, <u>E.G. Shehata</u> “Study and analysis of voltage source converter control stability for HVDC system using different control techniques” Ain Shams Engineering Journal 12 (2021) 2763–277
	17. <u>E. .G. Shehata</u> “comparison between conventional and flux-intensifying interior permanent magnet synchronous machines” Int Trans Electr Energy Syst. 2021;e12826.
	18. <u>E. .G. Shehata</u> “Design of high efficiency low frequency wireless power transfer system for electric vehicle charging” Electrical Engineering, https://doi.org/10.1007/s00202-021-01436-w
	19. Ibram Y. Fawzy, Yehia S. Mohammed, <u>E. G. Shehata</u> , Montaser Abd El Sattar “ A MODIFIED PERTURB AND OBSERVE TECHNIQUE FOR MPPT OF INTGRATED PV SYSTEM USING DC-DC BOOST CONVERTER” Journal of advanced engineering, Vol. 40, No. 1. January 2021.
	20. M.Elzalik , Hegazy Rezk, <u>E.G.Shehata</u> ,Jean Thomas and R.Mostafa “ INC-MPPT Algorithm for Maximizing Energy Conversion Efficiency of Thermoelectric Generating System” Engineering Research Journal 162 (June 2019) M34 – M49.
	21. <u>E. G. Shehata</u> “Bidirectional Quasi Y-source inverter Control for Electrical Vehicles” IEEE International Conference on Innovative Smart Grid Technologies ISGT Europe 2017, Torino, Italy.
	22. <u>E. G. Shehata</u> “Robust Direct Power Control Schemes of DFIGs Driven by Variable-speed Wind Turbines” Electric Power Components and Systems, 45(11):1231–1241, 2017.
	23. <u>E. G. Shehata</u> “A comparative study of current control schemes for a direct-driven PMSG wind energy generation system” Electric Power Systems Research 143, 197–205, 2017.
	24. <u>E. G. Shehata</u> “Sliding mode direct power control of RSC for DFIGs driven by variable speed wind turbines” Alexandria Engineering Journal (2015) 54, 1067–1075.
	25. <u>E.G. Shehata</u> “Direct Power Control of Wind Turbine Driven DFIG during Transient Grid Voltage Unbalance” Wind energy, 2014, 17, pp. 1077–1091.
	26. <u>E.G. Shehata</u> and Gerges M. Salama “Direct Power Control of DFIGs Based Wind Energy Generation Systems under Distorted Grid Voltage Conditions” Electrical Power and Energy Systems, 53, 2013, pp. 956–966.
	27. <u>E.G. Shehata</u> “Active and Reactive Power Control of Doubly Fed Induction Generators for Wind Energy Generation under Unbalanced Grid Voltage Conditions” Electric Power Components and Systems, Vol. 41, ISS. 6, 2013.

National Journals	<p>28. <u>E.G. Shehata</u> "Speed sensorless torque control of an IPMSM drive with online stator resistance estimation using reduced order EKF" <i>Electrical Power and Energy Systems</i> 47, 2013, pp. 378–386.</p> <p>29. A.A. Hassan, <u>E.G. Shehata</u> " High performance direct torque control schemes for an IPMSM drive" <i>Electric Power Systems Research</i> 89, 2012, pp. 171– 182.</p> <p>A. A. Hassan, A. M. El-Sawy, Y. S. Mohamed, and <u>E. G. Shehata</u> "Sensorless Sliding Mode Torque Control of an Interior Permanent Magnet Synchronous Motor Drive Based on Active Flux Concept" <i>Alexandria Engineering Journal</i>, AEJ, 2012, 51, pp. 1–9.</p> <p>30. A. A. Hassan, A. M. El-Sawy, Y. S. Mohamed, and <u>E. G. Shehata</u> "Design of A Recurrent Neural Controller for PMSM Drive Based on Sliding Mode Torque Control" <i>International Review of Automatic Control Journal (IREACO)</i>, Vol. 4, No.1, January 2011, pp 78-85.</p> <p>31. A. Hassan, A. M. El-Sawy, Y. S. Mohamed, and <u>E. G. Shehata</u> "New Direct Torque Control Schemes Of An Interior PMSM Drive Taking Iron Loss Into Account " <i>Journal of Engineering science, Assiut University</i>, Vol. 39, No. 1, January 2011.</p> <p>32. M. El-Sawy, Y. S. Mohamed , A. A. Hassan, and <u>E. G. Shehata</u> "Sliding Mode Torque Control of an IPMSM as Influenced by Iron Loss" <i>Journal of Engineering science, Assiut University</i>, Vol. 39, No. 1, pp. 161- 177, January 2011.</p> <p>33. Hassan, A. M. El-Sawy, Y. S. Mohamed, and <u>E. G. Shehata</u> "A New Switching Pattern for Direct Torque Control Of A Permanent Magnet Synchronous Motor Drive" <i>Journal of Engineering science, Assiut University</i>, Vol. 37, No. 5, pp. 1181-1192, September 2009.</p> <p>34. Hassan, Y. S. Mohamed, A. M. El-Sawy, and <u>E. G. Shehata</u> "A Novel Direct Torque Fuzzy Controller For Permanent Magnet Synchronous Motor Drive" <i>Journal of Engineering science, Assiut University</i>, Vol. 37, No. 5, pp. 1157- 1167, September 2009.</p> <p>35. M. Elzalik, Hegazy Rezk, <u>E. G. Shehata</u>, Jean Thomas, and R. Mostafa " Thermoelectric Power Generation System-Simulation and Experimental Investigation" Twentieth International Middle East Power Systems Conference (MEPCON), Cairo University, Egypt, 2018.</p> <p>36. <u>E. G. Shehata</u> "Performance Analysis of Doubly Salient Flux Memory Pm Motor for Electric Vehicles Applications" 17th International Middle East Power Systems Conference, Mansoura University, Egypt, December 15-17, 2015.</p> <p>37. Samir Abdel Azem Hamad, Jean Thomas, Ramadan Mostafa and <u>E. G. Shehata</u> "Digital Implementation of a Speed Control of Induction Motor Based on DTC and V/F Control" 17th International Middle East Power Systems Conference, Mansoura University, Egypt, December 15-17, 2015.</p> <p>38. Mariem Yassa William, Khalil Ali Ahmad, <u>E. G. Shehata</u> and Jean Thomas "Performance Analysis of Hybrid Electric Vehicles Using Batteries and Ultra-capacitors as a Hybrid Energy Storage System" 17th International Middle East Power Systems Conference, Mansoura University, Egypt, Dec. 15-17, 2015.</p> <p>39. Fayza Sayed M. Abd Elazeem, <u>E. G. Shehata</u>, and A. M. El-Sawy "Modelling and Control of Small Scale Brushless Double fed Induction Generator for Wind Energy Applications" 17th International Middle East Power Systems Conference, Mansoura University, Egypt, December 15-17, 2015.</p> <p>40. Mahmoud A.sayed , Essam E.M.Mohamed, M.M. Hamada, Taiea A. Ahmed and <u>E. G. Shehata</u>, "Cascaded Sliding Mode Control of Linear Induction Motor Drives" 17th International Middle East Power Systems Conference, Mansoura University, Egypt, December 15-17, 2015.</p> <p>41. <u>E. G. Shehata</u>, Jean Thomas, R. M. Mostafa and M. A. Ghalib "An Improved Droop Control for a Low Voltage DC Microgrid Operation" Twentieth International Middle East Power Systems Conference (MEPCON), Cairo University, Egypt, 2018, pp-850 -855.</p> <p>42. <u>E. G. Shehata</u>, Jean Thomas, A. M. Brisha, and Mostafa Wageh "Performance Analysis of a Quasi Y-Source Impedance Network DC-DC Converter" 19th International Middle East Power Systems Conference, Menoufia University, Egypt, December 19-21, 2017.</p> <p>43. <u>E. G. Shehata</u> "Predictive Control of a New Configuration of Bidirectional Quasi Y-Source Inverter Fed IPMSM for Electric Vehicle Applications" 19th International Middle East Power Systems Conference, Menoufia University, Egypt, December 19-21, 2017.</p> <p>44. <u>E. G. Shehata</u> "Direct Power Control of Rotor and Grid Side Converters of DFIGs Connected to Harmonically Distorted Grids" 16th International Middle East Power Systems Conference (MEPCON'14), Ain Shams University, Egypt, December 23-25, 2014.</p> <p>45. <u>E.G. Shehata</u> "Design tradeoffs between starting and steady state performances of line-started interior permanent magnet synchronous motor" <i>Power electronics, Machines and drive conference (PEMD' 2014)</i>, Manchester (U.K.), 2014.</p> <p>46. Hassan, Y. S. Mohamed, and <u>E. G. Shehata</u>, "Cascade sliding mode torque control of a permanent magnet synchronous motor, IEEE international conference on industrial technology, ICIT' 2006, Japan, pp. 465 -470.</p> <p>47. A. Hassan, Y. S. Mohamed, and <u>E. G. Shehata</u> "A Novel Sliding Mode Torque Control of an IPMSM Drive" The Eleventh International Middle East Power Systems Conference, MEPCON'2006, El-Minia, Egypt, Dec. 20 -22, 2006, Vol. 2, pp. 18-23.</p> <p>48. A. Hassan, Y. S. Mohamed, and <u>E. G. Shehata</u> "Direct Torque Control of an IPMSM Drive Based on Sliding Mode Technique" The Eleventh IEEE International Middle East Power Systems Conference , MEPCON'2006, El-Minia, Egypt, Dec. 20 -22, 2006, Vol. 2, pp. 10-17.</p> <p>49. A.A. Hassan, Y. S. Mohamed, and <u>E. Gamiel</u> "A Speed Sensorless Direct Torque Control Of Interior Permanent Magnet Synchronous Motor " The Tenth IEEE International Middle East Power Systems Conference, MEPCON'2005, Port Said, Egypt, Dec. 13 -15, 2005, pp. 199-205.</p>
Conference Publications	

Supervisor of PhD	<ol style="list-style-type: none"> 1- Mariem Yassa “ Developing a Virtual Prototyping of a Semi Active Trans-femoral Prosthetic Leg Using ADAMS” Minia University, continued. 2- Asmaa A.Elghany “ Performance Analysis of Direct Driven PMSG Based Wind Turbine under Normal and Abnormal Operating Conditions” Minia University, 2022. 3- Samir Abdel Azem “Design and performance analysis of an improved model predictive control of induction motor” Beni-Suef University, 2022. 4- Mohamed Ali “ Power Management of Low Voltage DC Microgrid" Beni-Suef University , 2019. 5- Mohamed Elzalik “ Performance analysis of Thermoelectric Generating System” Beni-Suef University, 2020 6- Aymen Yousef “ Study Some Of Wind Energy System / Electrical Substation Integration Issues Using Artificial Intelligence” Minia University, 2020.
Supervisor of Master	<ol style="list-style-type: none"> 1- Dalia Rabie “ Control System of HVDC Grid” Minia University, 2020. 2- Maged Samir “ Optimal Control And Management Of Electrical Microgrid Using Multi-Agent System Master Of Science” Minia University , 2019 3- Mariem Yassa “ Energy Regenerative Braking System Of Hybrid Electric Vehicle Master Of Science” Minia University, 2016 4- Bassma Abdel-Rahman “ Performance Analysis Of Passive And Active Filters For Mitigation Of Electric Power System Harmonics “ Minia University, 2019. 5- Fayza SAYED MAHMOUD “Vector control of brushless double fed induction generator driven by wind turbine” Minia University, 2016 6- Mostafa Wageh “ Control of a Quasi Y-Source Impedance Network DC-DC Converter” Beni-Suef University, 2017.
Supervisors of Projects	<p>Supervisor of the following project:</p> <ol style="list-style-type: none"> 7- Design and control of model predictive control of wind energy system driven PMSG. 8- Hybrid renewable energy system supply small village. 9- Design and implementation of small microgrid. 10- Design of a renewable energy system with storage energy units. 11- Modern control of three phase induction motor. 12- Power factor correction using modern techniques. 13-
Honours and awards	Honoured by Minia University for 10 years with international publishing awards.
Citations	<p><i>h</i> index (SCOPUS only): 11 Citations (SCOPUS only): 450 Total no. of Int. publications in SCOPUS: 38</p>

ANNEXES