

CURRICULUM VITAE

....**Dr. Rakan Khalil ANTAR**....

July 2018



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Specialization: Electrical Engineering /Power Electronics

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Education:

1. B.Sc. at Electrical Engineering Department, Power and Machines field, University of Mosul, Mosul, Iraq. Graduate Research was "**DC-AC Inverter**" 2002.
2. M.Sc. at Electrical Engineering Department, Power and Machines field, University of Mosul, Mosul, Iraq. Graduate research was "**Line Injection Technique for Harmonics Reduction in Three-phase Bridge Controlled Rectifier at Rectification and Inversion Modes**", 2005. Prof. Dr. Basil M. Saied (supervisor).
3. Ph.D at Electrical Engineering Department, Power Electronics field, University of Mosul, Mosul, Iraq. Graduate research was "**New Methods for Power Quality Improvements in HVDC Transmission System**", 2013. Prof. Dr. Basil M. Saied, Rafid A. Khalil Amori (supervisors).

Professional Experiences:

1. Lecturer since 2005 at Northern Technical University, Technical College/Mousl, Electrical Power Engineering Technology Department, Iraq.
2. External lecturer from 2002 to 2003 in Mosul University, Electrical Engineering.

Teaching Subjects:

- ❖ undergraduate students: Power Electronics, Power system Analysis, Computer applications, Engineering analysis and signal processing , Control engineering, and power electronics.
- ❖ postgraduate M.Sc students: Power electronics, Numerical Engineering Analysis.
- ❖ Computer software: Microsoft Office applications, Pspice, Assembly language, VHDL codes, Matlab (programming and simulation) and other softwares.

Scientific Sessions:-

I have six months training course at the **University of Northumbria/UK**. Been identified on electrical appliances in the power lab and apply many practical projects. Also, carrying out a part of my PhD project using Real-time system based on dSpace board system and get the desired results.

M.Sc. Supervision:

M.Sc. graduated student **Ahmed Saad Abdulaziz**, "Student Simulation and Implementation of a single phase induction motor drive using microcontroller", 2018.

Publications:

1. Basil M. Saied and **Rakan Kh. Antar**, "Line Injection Technique for Harmonic Reduction in a Three Phase Bridge Controlled Converter", 6th Jordanian International Electrical and Electronics Engineering Conference JIEEEEC2005, March 2006, Amman, Jordan.
2. Basil M. Saied and **Rakan Kh. Antar**, "Harmonic Mitigation Technique for the Power Quality Improvement of DC Motor Drives", International Aegean Conference on Electric Machines, Power Electronics and Electromotion'07, ACEMP'07, IEEE Conference, pages: 592-595, Turkey, September 2007.
3. Basil M. Saied and **Rakan Kh. Antar**, "Power Quality Improvement using Intelligent Methods to Control The DC Drive", 2nd Conference on Industrial Applications of Energy Systems (IAES2008), Faculty of Engineering, Sohar University, Sultanate of Oman, 2008.
4. **Rakan Kh. Antar**, Laith A. M., and Abdul Kareem Z. M., "Voltage Switching Angles Controlled by Neural Network for Speed Control of Induction Motor Driven by Five-Level Cascaded Inverter", 5th International Conference on Electrical Engineering CEE'08, Department of Electrical Engineering, Batna University, Batna, Algeria, October 2008.
5. **Rakan Kh. Antar**, Laith A. M., and Abdul Kareem Z. M., "V/F Control of an Induction Motor using Five-level Inverter", 6th Scientific Engineering Conference, Engineering College, Baghdad University, Baghdad, Iraq, 5-7 April 2009.

6. **Rakan Kh. Antar**, “Speed Control of DC Motor Using AC/AC/DC Converter Based on Intelligent Techniques”, Tikrit Journal of Engineering Sciences, University of Tikrit, College of Engineering, ISSN 1813-162X, vol. 16, No. 2, pages: 11-19, 2009.
7. Basil M. Saied and **Rakan Kh. Antar**, “The Investigation of Power Distortion in a Three-Phase Modified Controlled Converter Circuit”, 7th International Multi-Conference on Systems, Signals and Devices SSD10, pages: 1-6, IEEE Conference, Philadelphia University, Jordan, June, 2010.
8. Abdul Kareem Z. M., **Rakan Kh. Antar**, and Ahmed A. Allu, “Neural Network-PI Controller for Speed Control of a 3-phase Induction Motor Supplied from Rectifier-Inverter Set”, 11th Scientific Conference, Foundation of Technical Education, Technical College/Baghdad, 23-24/3/2009, Baghdad-Iraq.
9. Ahmed A. Allu, Laith A. Kh., and **Rakan K. Antar**, “Speed Control of Three Phase Induction Motor Based on Speed Sensorless Direct Vector Control Technique”, 12th Scientific Conference, Foundation of Technical Education, Engineering Researches, Vol. 2, pages: 65-78, March, 2011.
10. **Rakan Kh. Antar**, Basil M. Saied, Rafid A. Khalil, and Ghanim A. Putrus, “HVDC Link Power Quality Improvement using A Modified Active Power Filter”, 47th International Universities’ Power Engineering Conference (UPEC2012), Brunel Institute of Power Systems, Brunel University, IEEE IET Conference, pages: 1-5, London, UK, 2012.
11. **Rakan Kh. Antar**, Basil M. Saied, and Rafid A. Khalil, “Modified Active Power Filter Based on Five-level Cascade H-Bridge PWM Voltage Source Inverter”, 9th International Conference on Electronics, Computer and

Computation, ICECCO2012, Turgut Ozel University, Ankara, Turkey, November 2012.

12. **Rakan Kh. Antar**, Basil M. Saied, and Rafid A. Khalil, “Using Seven-Level Cascade H-Bridge Inverter with HVDC System to Improve Power Quality”, The 1st National Conference For Engineering Sciences, FNCES’12, University of Al-Nahrain, Baghdad, Iraq, November 2012.
13. Basil M. Saied, Rafid A. Khalil, and **Rakan Kh. Antar**, “Power Quality Improvement in a HVDC Transmission System Based on a Modified Active Power Filter”, Al-Rafidain Engineering Journal, University of Mosul, College of Engineering, vol. 21, Issue 5, pages: 16-24, 2013.
14. **Rakan K. Antar**, Ahmed A. Allu and Ahmed J. Ali, “Sensorless Speed Control of Separately Excited DC Motor Using Neuro-Fuzzy Controller”, International Conference of Electrical, Communication, Computer, Power, Control Engineering ICECCPCE’13, IEEE Conference, Technical college/ Mosul, Mosul, Iraq, December, 2013.
15. Ahmed J. Ali; Ahmed A. Allu; **Rakan Khalil ANTAR**, “Fuzzy Logic Technique Based Single Phase Auto-Reclosing Protection System of A Double Circuit Transmission Line”, International Conference of Electrical, Communication, Computer, Power, Control Engineering ICECCPCE’13, IEEE Conference, Technical college/ Mosul, Mosul, Iraq, December, 2013.
16. Rafid A. Khalil and **Rakan Kh. Antar**, “Neural Network Based on Model Reference Using for Robot Arm Identification and Control”, Al-Rafidain Engineering journal, University of Mosul, College of Engineering, vol. 22, No. 4, pages: 100-109, 2014.
17. Ahmed A. Allu; **Rakan Khalil ANTAR**, “Design and Modeling of Speed Sensorless Control of DC Motor Drive System”, Al-Rafidain Engineering

- Journal, University of Mosul, College of Engineering, vol. 22, No. 5, pages: 89-100, 2014.
18. **Rakan Khalil ANTAR**, Ahmed A. Allu, “Sensorless Speed/Torque control of DC Machine using Artificial Neural Network Technique”, Tikrit Journal of Engineering Sciences Vol. 23, No.3, pages: 55-62, 2016.
 19. **Rakan Kh. Antar**, Basil M. Saied, and Rafid A. Khalil, “Power Quality Improvement of High Voltage DC Link using Modified Shunt Active Power Filter”, Al-Kitab Journal for Pure Sciences, Vol.1, Issue: 1, pp. 54-66, December, 2017.
 20. **Rakan Khalil ANTAR**, “Multilevel Inverter with Unequal and Selected DC Voltage Sources Using Modified Absolute Sinusoidal PWM Technique”, 1st International Scientific Conference of Engineering Sciences - 3rd Scientific Conference of Engineering Science (ISCES), pp: 62-67, January, 2018.
 21. **Rakan Khalil ANTAR**, “Speed/Torque Estimation and Control of a DC Machine in Four Quadrants Operation Modes”, Al-Nahrain Journal for Engineering Science (NJES), Vol.21, No.2, pp. 238-247, 2018.
 22. **Rakan K. Antar**, Ahmed S. Abdulaziz, “Single-phase Induction motor Drive Circuit Based on SPWM and SVPWM Techniques”, International Journal of Engineering and Innovative Technology (IJEIT), Vol.7, Issue 10, pp. 1-5, April 2018.
 23. Nashwan Saleh Sultan, **Rakan Khalil ANTAR**, Bashar Abbas FADHEEL, “A Comparative Control Study of A Separately Excited DC Motor Using Intelligent Controllers”, Journal of Engineering and Applied Sciences, Vol. 13, No. 22, pp. 9799-9805, 2018.

24. Mohammed Y. Suliman, **Rakan Khalil ANTAR**, “Power flow controller based on a new proposed STATCOM controller”, International Journal of Engineering and Technology, Vol.7, No. 4, pp. 3826-3829, 2018.
25. **Rakan Khalil ANTAR**, Asef A. SALEH, Mohammed A. IBRAHIM, “Harmonics Resonance Effect Solution in Industrial Systems using Active Static Compensation Circuit”, Accepted at 2nd international conference on Electrical, Communication, computer, power and control Engineering (ICECCPCE19), IEEE, 2019.
26. **Rakan Khalil ANTAR**, Nashwan S. SULTAN, Ahmed J. ALI, “Speed Control of Three-Phase Induction Motor Fed by Renewable Energy Source”, Accepted at 2nd international conference on Electrical, Communication, computer, power and control Engineering (ICECCPCE19), IEEE, 2019.