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1-Personnel information

Name : Samy Mohamed Abd El Aziz Ghania
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2-Educational information

1990 – 1995 B.Sc. Shoubra faculty Of Engineering, Zagazig University Cairo, Egypt. Electrical Engineering (Electric Power Systems and Machines)

1997 -2001 M.Sc. Shoubra faculty Of Engineering, Zagazig University Cairo, Egypt. Electrical Engineering (Electrical Power Systems and Machines)

2002 - 2005 Ph.D Shoubra faculty Of Engineering, Benha University Cairo, Egypt. Electrical Engineering (Electrical power systems - High voltage engineering)

2006-2008 Post Doctor Fellow Researcher in University of Waterloo- Waterloo- Ontario- Canada

2013- up till Now Associate Professor in Shoubra faculty on Engineering, Benha University, Cairo, Egypt

3-Selected Publications

- [1] Sayed A. Ward , Samy M. Ghania and Essam M. Shaalan,” Assessment of Electric Field Distribution Inside 500/220 kV Open Distribution Substations during Working Conditions”, TELKOMNIKA Indonesian Journal of Electrical Engineering Vol.12, No.4, April 2014, pp. 701 ~ 708.
- [2] Samy M. Ghania,” Study of the transient electromagnetic fields inside high voltage substations”, IRACST – Engineering Science and Technology: An International Journal (ESTIJ), ISSN: 2250-3498, Vol.3, No.3, June 2013
- [3] Samy M. Ghania ,” Evaluation of Electromagnetic Fields Exposure During Live Line Working conditions Inside High Voltage Substations”, IRACST – Engineering Science and Technology: An International Journal (ESTIJ), ISSN: 2250-3498, Vol.3, No.1, February 2013
- [4] A. Saber and Samy. M. Ghania,” Control of Stepper Motor Using Microcontroller for Computer Numerical Control (CNC) Drilling Machines”, 1st International Conference on New Paradigms in Electronics and Information Technologies (PEIT '011) Oct. 09-12, 2011, Alex., Egypt
- [5] Samy M. Ghania ,” Comparison between single and double bus bar configurations on magnetic field distribution inside high voltage substations” IRACST – Engineering Science and Technology: An International Journal (ESTIJ), ISSN: 2250-3498, Vol.2, No. 2, April 2012
- [6] Samy M. Ghania ,” internal fault/ inrush currents discrimination based on fuzzy/ wavelet transform in power transformers” IRACST – Engineering Science and Technology: An International Journal (ESTIJ), ISSN: 2250-3498, Vol.2, No. 2, April 2012
- [7] Abdelsalam H. Hamza, Samy M. Ghania and Tamer Elyan, ” Bipolar and multi-terminal HVDC systems under different conditions”, Engineering and scientific research Journal (ESRJ) at of Shoubra faculty of Engineering , July, 2011
- [8] Samy M. Ghania ,”Study of Regenerative Braking Of Electrical Vehicles”, Engineering and scientific research Journal (ESRJ) at of Shoubra faculty of Engineering, July,2011.
- [9] Essam M. Shaalan, Samy M. Ghania and Sayed A. Ward,” Analysis of Electric Field inside HV Substations using Charge simulation method in three

dimensional”, 2010 Annual Report Conference on Electrical Insulation and Dielectric Phenomena (CEIDP-2010), Germany, October, 2010.

- [10] M. Eldery, Samy M. Ghania and A. Saber,” Soft Starting of Three-Phase Induction Motor Using DSP Auto Coding and Power System Controllers (Digital Motor Controllers)”, 7th International Conference on Electrical Engineering ICEENG 2010, 25-27 May, 2010, Cairo, Egypt.

- [11] A.H. AL-Badi, Samy M. Ghania and Ehab F. El-Saadany " Prediction of Metallic Conductor Voltage Owing to Electromagnetic Coupling Using Neuro Fuzzy Modeling ", IEEE Transaction on Power delivery, Vol. 24, No. 1, January 2009.

- [12] Samy M. Ghania, Ayman S.Elwer, M. M. A. Salama " Electric field calculations in deep brain stimulations " International Conference on Communication, Computer and Power (ICCCP09), Muscat, Feb. 15-18, 2009., Sultanate of Oman pp.107-114.

- [13] Samy M. Ghania, Ayman S. Elwer, Reda Morsi and M. M. A. Salama” Monitoring for Mutual Effects of Switching Power Capacitors in Power Systems” Journal of Power Electronics (JPE), Vol. 8, No. 4, PP325-331, 2008.

- [14] Ayman S.Elwer, Samy M. Ghania, Nagat M. K. A. Gawad "Battery Management System For Electric Vehicle Applications " International Conference on Communication, Computer and Power (ICCCP07), Muscat, Feb. 19-21, 2007, Sultanate of Oman pp.355-360.

- [15] Shaher A. Mahmoud A. H. Hamza Nagat M. Abdel Gawad and Samy M. Ghania, Application Of Analytical And Numerical Methods To Evaluate Induced Currents In Human Bodies By ELF Magnetic Fields”, 14th International Symposium on High Voltage Engineering (ISH 2005), August 25-29, 2005, Beijing, China.

- [16] Samy. M. Ghania, Abd El Salam H. Hamza , Nagat. M. Abdel-gawad and Shaher A.Mohmoud , "Evaluation of Magnetic Induction Inside Humans at High Voltage Substations", Scientific Bulletin, Ain Shams university, Faculty of Engineering, Dec., 2004.

- [17] Shaher A. Mahmoud, Abd El Salam H. Hamza and Samy M. Ghania, “ Residential Exposure to Magnetic fields Produced by High Voltage

Transmission Lines”, 9th International Middle-East Power Systems Conference, Mecon, pp. 745-749, December 16-18, Egypt 2003.

- [18] Abd El Salam H. Hamza, Shaher A. Mohmoud and Samy M. Ghania, “Evaluation Of Human Exposure To Magnetic Fields Under Live Line Maintenance Conditions” XIIIth International Symposium On High Voltage Engineering, Netherlands 2003.

4-Practical and Academic Work Experiences

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| 1997 – Up
now | teaching in Shoubra Faculty of Engineering Benha
University, Cairo, Egypt. |
| 1997-2001 | ABC Company, Cairo, Egypt, Technical Support (Part
Time). |
| 2001-2003 | Technical Support and General director for American
Company in Egypt NGM ' New generation Company', For
Their Project of the Electrical Buses with SFD (Social
Funds For Developments) at Pyramids Plateau In Greater
Cairo – Egypt till 2004. (Part Time). |
| 2004-2005 | Technical Support Manager in Ghabour Company (AFICO)
for Electrical Vehicles Cairo, Egypt. (Part Time). |
| 2006-2008 | Post doctor Fellow Researcher in Waterloo University –
Ontario – Canada. |
| 2009-2010 | Control Senior Engineer in Egyptian Group Engineering
Consultant (EGEC). For building management systems
BMS and Scada systems and Electrical distribution systems.
(Part Time). |
| 2010- up till
now | Assistant Professor in King Abdul Aziz University- Jeddah-
Saudi Arabia. |
| 2013 | Associate Professor in Shoubra Faculty Of Engineering
Benha University, Cairo, Egypt. |

5-Courses

- Electric Circuits (1,2)
- Electric Drive System and Control
- Fundamentals of Electrical Engineering
- High Voltage Engineering
- Laboratory (High Voltage, and Basic Electronics)
- Power System Protection
- Automatic control
- Power electronics
- Computer Applications in High-Voltage Engineering
- Utilization of Electric Power.
- PLC and microcontrollers
- MATLAB
- Optimal Economic Operation of Power Systems
- Electrical Power and Machinery Control
- Electrical Power systems
- Electromagnetic field I, II and Microwaves in Canadian international college (CIC- 2009/2010)

6-Supervised graduation projects

- 1- Programmable Logical Control (PLC) for Induction Motor control/Scada Systems
- 2- Microcontroller based system of DC Motor drive System of Electrical Vehicles DSP application for design and construct electric vehicles drive system and investigating regenerative braking using the Voltage/Frequency control and DTC in University of Waterloo
- 3- Smart house automation using Scada/Plc
- 4- Integration Between Scada and PLC
- 5- Optimum Electrical Distribution inside Building

- 6- Electrical Vehicle control using Micro-controllers (This project was ranked the first project in EGYPT 2009 in the competition of Made in Egypt (MIE).

7- Supervised M.Sc. and Ph.D Thesis

- 1- Study of High Voltage Direct Current Transmission Systems”. –(M.Sc)
- 2- Electric Field Calculation inside Gas Insulated Substations Using Charge Simulation Method in Three Dimensions.–(M.Sc)
- 3- Protection Schemes Of Power Transformer using Fuzzy prediction. –(M.Sc)
- 4- Study of Overvoltage in Power systems. –(M.Sc)
- 5- Assessment of Electric Field Distribution Inside 500/220 kV Open Distribution Substations during Working Conditions. -(Ph.D)
- 6- Insulation coordination inside high voltages power system networks. -(Ph.D)