

Personal Details:

Abdelaziz Yousif Mohamed Abbas

Date of Birth: 25 November 1967

Marriage Status: Marriage with 5 Children

Job Title: Assistant Professor

Position

- School of Electrical and Nuclear Engineering Direct, from September 2012 until now.
- Head of Power and Machines Department, from September 2011 to September 2012.
- Head of Power and Machines Section, from March 2010 to September 2011.

Institution: Sudan University of Science and Technology (SUST)

Email: abdelaziz.abbas@yahoo.com, abdelazizyousif@sustech.edu

Education:

- PhD in Electronic and Electrical Engineering, University of Strathclyde, UK, 2009.
- M.Sc. in Electrical Engineering (Power and Machine) SUST, Sudan, 2002.
- B. Tech in Electrical Engineering (Power and Machine) SUST, Sudan, 1996.

Academic Appointment at SUST

- Total year of service: 16 years
- Assistant Professor, from December 2009 until now
- Lecturer, from June 2002 to November 2009.
- Teaching Assistant, from May 1998 to May 2002.
- Teaching Assistant, from 1996 to 1998 (Part-time).

Other Related Experience:

- Part-time Teaching Assistant, Lecturer and then Assistant Professor in many Sudanese Universities such as Karary University, Nyala University.
- Part-time Teaching Assistant, Heriot-Watt University, Edinburgh, UK, April 2006 - July 2007.
- Part-time Assistant Professor in Sudan Academy of Sciences, Engineering Research and Industrial Technology.
- Part-time Assistant Professor in International University of Africa, Khartoum, Sudan.

Membership of Scientific and Professional Societies

- Member of Institute of Engineering and Technology (IET), UK
- Member of College of Engineering Cancell (SUST), Sudan
- Member of Sudan University of Science and Technology Senate, Sudan

Honors, Awards & Grants

- Scholarship, (SUST), Sudan, 2000.
- Scholarship, Heriot-Watt University, Edinburgh, UK, 2005.
- Scholarship, University of Strathclyde, Glasgow, UK, 2007.

Research Interests:

Power electronics, drives and energy conversion, power quality and renewable power integration, power systems operation and power systems stability and control, power system planning and protection, application of power electronics in power systems.

Publications

- **Abdelaziz Yousif Mohamed**, Yousif Hassan Abdelrahim, “Steady State Stability of the Multi-machine National Grid System (Sudan)”, *Sudan Engineering Society Journal*, Sudan, Vol. 49, No. 41, ISSN: 0029-2469, Dec. 2003.
- **Abdelaziz Y. M. Abbas**, John E. Fletcher, “Efficiency Evaluation of Linear Permanent Magnet Synchronous Machines Using the Synthetic Loading Method”, *39th IEEE, Power Electronics specialists conference (PESC08)*, Rhodes, Greece, 15-19 June, pp. 3074-3080.
- **Abdelaziz Y. M. Abbas**, John E. Fletcher, “Synthetic Loading Technique for Efficiency Evaluation of Permanent Magnet Synchronous Machines”, *44th, IEEE International Universities Power Engineering Conference*, Glasgow, UK, 1-4 Sept. 2009.
- **Abdelaziz Y. M. Abbas**, John E. Fletcher, “Synthetic Loading Applied to Linear PM Synchronous Machines”, *IET Renewable Power Generation*, Vol.4, Iss. 3, April 2010, pp. 221-231.
- **Abdelaziz Y. M. Abbas**, John E. Fletcher, “Efficiency Evaluation of Interior Permanent Magnet Synchronous Machines using the Synthetic Loading Technique” , *20th IEEE International Symposium on Power Electronics, Electrical Drives, Automation and Motion*, PISA, Italy, 14-16 June 2010.
- **Abdelaziz Y. M. Abbas**, John E. Fletcher, “The Synthetic Loading Technique Applied to the PM Synchronous Machine” *IEEE Transactions on Energy Conversions*, Vol. 26, No. 1, March 2011, pp. 83-92.
- **Abdelaziz Y. M. Abbas** and John E. Fletcher, “The Effect of Direct Axis Current on the Performance of Synthetic Loading Technique”, *IEEE Transaction on Energy conversions*, Vol. 26, No. 1, March 2011, pp.115-121.
- Salah Eldeen Gasim Mohamed, **Abdelaziz Yousif Mohamed** and Yousif Hassan Abdelrahim, “ Power System Contingency Analysis to detect Network Weaknesses” , *Zaytoonah University International Engineering Conference on Design and Innovation in Infrastructure 2012*, Jun 18-20, 2012 Amman, Jordan.
- Salah Eldeen Gasim Mohamed, **Abdelaziz Yousif Mohamed** and Yousif Hassan Abdelrahim, “ Transmission Lines Overload Alleviation by Generation Rescheduling and Load Shedding” , *Zaytoonah University International Engineering Conference on Design and Innovation in Infrastructure 2012*, Jun 18-20, 2012 Amman, Jordan.

- Salah Eldeen Gasim Mohamed, **Abdelaziz Yousif Mohamed** and Yousif Hassan Abdelrahim, "A New Method of Optimum Reactive Power Allocation to Improve Network Voltage Profile", *Zaytoonah University International Engineering Conference on Design and Innovation in Infrastructure 2012*, Jun 18-20, 2012 Amman, Jordan.
- Salah Eldeen Gasim Mohamed and **Abdelaziz Yousif Mohamed**, "Study of Load Side Harmonics Sources Effects and Elimination", *Zaytoonah University International Engineering Conference on Design and Innovation in Infrastructure 2012*, Jun 18-20, 2012 Amman, Jordan.
- Giddani O. A. Kalcon, **Abdelaziz Y. M. Abbas**, "Battery Storage System for Frequency Stabilization of AC Networks with High Penetration of Renewable Power", Accepted for publication in *JST-Engineering and Computer Science*, Khartoum, Sudan.
- **Abdelaziz Y. M. Abbas**, Giddani O. A. Kalcon, Abubaker H. Sidahmed, "Impact of STATIC VAR Compensator on Performance of Distance Protection of Transmission Lines", Accepted for publication in *JST-Engineering and Computer Science*, Khartoum, Sudan.
- A. Taifour Ali, **Abdelaziz Y. M. Abbas** and Ekram Hassabo Abaid Osman, "Control of Induction Motor Drive Using Artificial Neural Network", Accepted for publication in *JST-Engineering and Computer Science*, Khartoum, Sudan.
- Giddani O. A. Kalcon, **Abdelaziz Y. M. Abbas** and Grain P. Adam, "Distributed Storages Systems for Frequency Stabilization in the Future Power Systems", Accepted for publication in *Science and Engineering Publishing: Advances in Energy Engineering (AEE)*.
- Giddani O. A. Kalcon, **Abdelaziz Y. M. Abbas** and Grain P. Adam, "Multi-task Control for VSC-HVDC Power Management and Frequency Control", Accepted for publication in *Science and Engineering Publishing: Advances in Energy Engineering (AEE)*.
- Salah Eldeen Gasim Mohamed, **Abdelaziz Yousif Mohamed** and Yousif Hassan Abdelrahim, "Transmission Lines Overload Alleviation by Generation Rescheduling and Load Shedding", submitted for publication in *Journal of Infrastructure Systems*.

Professional Activities:

- Supervision of PhD. and M.Sc. students and B.Sc. graduation projects
- **M.Sc. courses:** Computer Application, Power Electronics, Power System Protection, High Voltage Engineering, Power System Distribution, Power System Analysis, Electrical Machines Dynamics and Computation, Electronic Control of Electrical Machines. Power System Stability and control.
- **B.Sc. courses:** Electrical Circuit, Electrical Circuit Theory, Power System Engineering, Power System Analysis, Electrical Machines, Unified Theory of Electrical Machines, Computer Application.
- Reviewer for a number of international journals:
 - ✓ IET Renewable Power Generation Journal (UK).
 - ✓ IET Generation, Transmission and Distribution Journal (UK).
 - ✓ IEEE Transaction on Energy Conversions Journal (USA).

Professional development:

Attending courses, workshops and conferences such as:

- Advance Power Point Presentation Course, Heriot-Watt University, Edinburgh, UK, March 2007.
- PhD WORKSHOP 2006, Electrical, Electronic and Computer Engineering, School of Engineering & Physical Sciences, Heriot-Watt University, Edinburgh, UK, Nov. 2006.
- English Academic writing, Heriot-Watt University, Edinburgh, UK, 3 January-10 March 2007.
- English Reading, Listening and Speaking, Heriot-Watt University, Edinburgh, UK, 3 January-10 March 2007.
- English Integrated Skills, Heriot-Watt University, Edinburgh, UK, 15 April-10 June 2007.
- Annual Research Conference 2007, “Energy, Transport and Logistics”, Heriot-Watt University, UK, June 2007.
- Building Common Ground in Cross Disciplinary Processes, Projects, and Alliances, research training course, University of Strathclyde, Glasgow, UK, Oct. 2007.
- Self-assessment and Personal Marketing, research training course, University of Strathclyde, Glasgow, UK, Oct. 2007.
- Effective group Working, research training course, University of Strathclyde, Glasgow, UK, Dec. 2007.
- Research Presentation Day 2008, Faculty of Engineering, University of Strathclyde, Glasgow, UK, Jan. 2008.
- Writing and Presenting Research, research training course, University of Strathclyde, Glasgow, UK, Jan. 2008.
- Preparing for Group Presentations, research training course, University of Strathclyde, Glasgow, UK, Feb. 2008.
- 39th IEEE, Power Electronics Specialists’ Conference, Rhodes, Greece, 15-19 June 2008.
- 44th, IEEE International Universities Power Engineering Conference, Glasgow, UK, 1-4 Sept. 2009.
- Basic Training Programme for the Developing the Professional Performance of the University Staff, SUST, Khartoum, Sudan, 23 Oct. – 3 Nov. 2011.