

CURRICULUM VITAE

Ass. Prof. Dr. Ali Ahmed Adam Ismail



Personal Information

Nationality : Sudan

Birth: Sudan -1966

Marital Status: Married-2 girls, 1 son

Addresses:

Current Address:

Job: University of Sharjah, Faculty of Engineering

Department: Electrical & Computer Engineering

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Phone: (Mob.:+249 -914321114)

Languages: Arabic, English, Turkish.

Present Status

Staff member, University of Sharjah

Educational Qualification

PHD, Electrical Engineering , Yildiz Technical University, 2007

Fields of Interest

Electrical Engineering: Motion control, Electrical Machine Drive System, Power Systems

Professional Responsibilities

See work experience

Work Experience

- 1985-1991 **Bachelor (honor 1st Class)** Khartoum University. Sudan Faculty of Engineering Electrical Department
- 1994-1997 **Master of Science.** Electrical Engineering, Baghdad University, Iraq:
Thesis: "ONE PHASE INVERTER FED THREE PHASE INDUCTION MOTOR"
- 2001-2002 **Diploma of Turkish Language,** Ankara University, Istanbul-Turkey
- 2002-2007 **Doctor of Philosophy (Ph.D.),** Yildiz Technical University-Turkey, Electrical–Electronics Faculty, Electrical Engineering Department, Control & Automation Program.
Thesis: "TORQUE RIPPLES AND NOISE REDUCTION IN PERMANENT MAGNET SYNCHRONOUS MOTOR"
- 9-29/8/2000 **"National Training Course on repair & Maintenance of Microprocessor and Microcontrollers Based Instruments"** Sudan Atomic Energy Commission (SAEC)
- 18-22/2/2001 **"Basic Web Technology Skills for Courseware development"**, Activity of the UNESCO USEE PROGRAMME FOR UPGRADING SCIENCE AND ENGINEERING EDUCATION
- 1991-1994 **Teaching Assistance** –Omdurman Islamic University - Sudan
7-9 / 1993 **Engineer** in Khartoum North Power Station
- 1997-2001 **Lecturer** Omdurman Islamic University – Sudan
01-02/1999 **Construction and installation** of Fundamental Electrical Experiments
01-04/1999 **Construction and installation** of Electrical Machine Laboratory
2000– 2001 **Engineering Diploma Coordinator** Omdurman Islamic University/Sudan
- 2007- 2009 **Assistant Prof.** in Electric-Electronic dept. Faculty of Eng. Omdurman Islamic University
2009-2011 **Assistant Prof.** in Electric-Electronic dept. Faculty of Eng. Fatih University- Istanbul / Turkey
- 2011-2012 **Associated Prof.** (since 2010) in Electric-Electronic dept. Faculty of Eng. Omdurman Islamic University
- 2012-2013 **Head, department** of Electrical and Electronics Engineering, Omdurman Islamic University
- (2013-3-1) – (2013-8-31) Fatih University Istanbul, **Faculty Member**
2013-9-5 to date **Faculty Member** University of Sharjah,
2014-2016 Department Seminars coordinator
2014-2016 **Ministry Accreditation Committee Member**

2015-2016 **ABET Accreditation committee member**
2014-2017 **Coordinator of Control /Power Specialty group**
2015-2017 **Course file and CPI Committee member**
2017-2018 **Course file and CPI Committee Chair**
2017-2018 **Student Activities Committee (IEEE - WIE) member**

Publications

- 1- Ali Ahmed Adam and Kayhan Gulez , “**Differential Mode Modeling of PMSM for high frequency and harmonic pulses calculation**”, Asian Journal of Control, Vol. 17, No. 1, pp. 1–8, January 2015
- 2- **Ali Ahmed Adam** and Kayhan Gulez, "Reduction of torque pulsation and noises in PMSM with hybrid filter topology", Simulation Modelling Practice and Theory, Vol. 19, No. 1, Jan. 2011, pp. 350 – 361
- 3- **Ali Ahmed Adam**, Kayhan Gulez and Selim Koroğlu, "Stray magnetic field distributed around a PMSM", Turk J Elec Eng & Comp Sci, Vol. 19, No. 1, Jan. 2011, pp. 119-131
- 4- Nurettin Umurkan, Selim Koroglu, Osman Kilic and **Ali A. Adam** “A neural network based estimation method for magnetics shielding At extremely low frequencies”, Expert System with Application, 2010, p.p 3195-3201
- 5- A. A. Adam, K. Gulez, “A New Sensorless Hysteresis Direct Torque Control Algorithm for PMSM with Minimum Torque Ripples”, COMPEL, Vol.28, No.2, p.p. 437-453, April 2009.
- 6- S. Koroglu, A. A. Adam, N. Umurkan and K. Gulez, “Leakage Magnetic Flux Density in the Vicinity of Induction Motor During Operation”, Electrical Engineering, Springer Berlin / Heidelberg Volume 91, Number 1 / June, 2009 g Pages:15-21
- 7- Ali Ahmed Adam, Kayhan Gulez and Halit Pastaci, “A direct torque control algorithm for permanent magnet synchronous motors with minimum torque pulsation and reduced electromagnetic interference noise”, International Journal of Electronics, Vol. 96, No. 11, November 2009, 1191–1196
- 8- Gulez K., **Adam A. A.**, Pastacı H., “Torque Ripples and EMI Noise Minimization in PMSM Using Active Filter Topology and Field Oriented Control”, IEEE-Transactions on Industrial Electronics, Vol. 55, No. 1, Jan. (2008).
- 9- **Adam A. A.** and Gulez K., “Fast response adaptive fuzzy logic controller for sensorless direct torque control of PMSM with minimum torque ripple “, The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, (COMPEL), Vol. 27 No. 2, 532-549, (2008).
- 10- Kayhan Gulez and **Ali A. Adam** “High-Frequency Common-Mode Modeling of Permanent Magnet Synchronous Motors”, IEEE TRANS. ON ELECTROMAGNETIC COMPATIBILITY, Vol. 50, No. 2, 423-426, May (2008).
- 11- Gulez K., **Adam A. A.**, Buzcu I.E., Pastacı H., “Using Passive Filters to Minimize Torque Pulsations and Noises in Surface PMSM Derived Field Oriented Control”, Simulation Modelling Practice and Theory, Vol.15, No.8, p.p.989-1001, (2007).
- 12- Gulez K., **Adam A. A.**, Pastacı H., “Passive Filter Topology to Minimize Torque Ripples and Harmonic Noises in IPMSM Derived with HDTC”, IJE-International Journal of Electronics, Vol. 94, No:1, p.p.23-33, (2007).

- 13- Gulez K., **Adam A. A.**, Pastacı H., “A Novel Direct Torque Control Algorithm for IPMSM with Minimum Harmonics and Torque Ripples”, IEEE/ASME Transactions on Mechatronics, Vol.12, No.2, p.p.223-227, (2007).
- 14- **Adam A. A.**, Gulez K., Erdogan N., “Minimum Torque Ripple Algorithm with Fuzzy Logic Controller for DTC of PMSM”, Lecture Notes in Computer Science (LNCS), Vol. 4681, 511-521, (2007).
- 15- Gulez K., **Adam A. A.**, Pastacı H., “Improving the Performance of Hysteresis Direct Torque Control of IPMSM Using Active Filter Topology”, SADHANA-Academy Proc. in Engineering Sciences, 31, Part.3, 245-258, (2006).
- 16- Ismail. A. M. and, **Adam A. A** “Dynamic Analysis of 3-phase Induction Motor Supplied by a Single Phase Non Sinusoidal Voltage”, Engineering, Bagdad, Vol.4, No.4, November 1999

International Conference Publications:

1. **Ali Adam**; A. Elnady; Amer Ghias “A novel multilevel DC chopper supplying DC motor”, 5th International Conference on Electronic Devices, Systems and Applications (ICEDSA), 6-8 Dec 2016, Ras-Al_Khaima, UAE, Pages: 1 - 5, DOI: 10.1109/ICEDSA. 2016.7818494.
2. A. Elnady; **A. Adam** , “Multilevel inverter operated by voltage orientation control”, 5th International Conference on Electronic Devices, Systems and Applications (ICEDSA) , 6-8 Dec 2016 , Ras-Al_Khaima, UAE, Pages: 1 - 4, DOI: 10.1109/ICEDSA.2016.7818466
3. **Ali Adam**, “ Simple Variable Power Frequency Magnetic Field Measurement”, International Conference on Signal Processing , Communication, Power & Embedded System SCOPES – 2016, 2-5 October 2016
4. **Ali A. Adam** ,and Amr M. Al-Nady, “EVALUATION OF ELECTRIC POWER ENGINEERING COURSES AT UNIVERSITY OF SHARJAH”, 7th International Forum on Engineering Education (IFEE2015) , 17-19 March 2015, Sharjah.
5. **Ali Ahmed Adam**, “Accurate Modeling of PMSM for Differential Mode current and Differential Torque Calculation”, ICCEEE 2013, 26-28 Khartoum, Sudan, Page(s): 103 – 109
6. **Ali Ahmed Adam**, Kayhan Gulez,Ibrahim Aliskan, Yusuf Altun, Rahmi Guclu, Muzaffer Metin, "Steering DTC Algorithm for IPMSM Used in Electrical Vehicle (EV)- with Fast Response and Minimum Torque Ripple ", Advanced Motion Control AMC, Nagaoka Japan, Mar. 2010 IEEE, 21-24, pp. 279-283
7. **Ali Ahmed Adam** and Kayhan Gulez,” Hybrid Filter Topology to Minimize Harmonics and EMI Noise in PMSM with HDTC “, IEEE IECON’2009, 3-5 Nov. 2009 PORTO PORTUGAL, pp 1582-1587
8. **Ali Ahmed Adam** and Kayhan Gulez , “Stray Electromagnetic Field Distribution around Permanent Magnet Synchronous Motor Drive”, IEEE IECON’2009, 3-5 Nov. 2009 PORTO PORTUGAL pp. 1796-1801
9. **Adam A. A.**, Gulez K., “High Frequency Modeling of PMSM Connected to Long Cable”, SICE, The Society of Instrument and Control Engineers Annual Conference, Takamatsu-Kagawa/Japan, , 17-20 September 2007.
10. Gulez K., **Adam A. A.**, “Adaptive Neural Network Based Controller for Direct Torque Control of PMSM with Minimum Torque Ripples”, SICE, The Society of Instrument and Control Engineers Annual Conference, Takamatsu-Kagawa/Japan, , 17-20 September 2007.
11. **Adam A. A.**, Gulez K., “Torque ripples and EMI Noise Minimization in PMSM Using Hybrid Filter”, SICE, The Society of Instrument and Control Engineers Annual Conference,

Takamatsu-Kagawa/Japan, , 17-20 September 2007.

12. Gulez K., **Adam A. A.**, “Compound Passive Filter to Minimize Torque Ripples and EMI Noises in PMSM Drives”, SICE, The Society of Instrument and Control Engineers Annual Conference, Takamatsu-Kagawa/Japan, , 17-20 September 2007.
13. Gulez K., **Adam A. A.**, “Kalıcı Miknatıslı Senkron Motorun Yüksek Frekans Hesaplamaları için Kablo Modellemesi”, TOK’07 Otomatik Kontrol Ulusal Toplantısı, 380-385, İstanbul, 5-7 Eylül 2007 (in Turkish).
14. Gulez K., **Adam A. A.**, Nuh Erdğan “Kalıcı Miknatıslı Senkron Motorun Doğrudan Moment Kontrolü için Minimum Moment Dalgalanması Sağlayan Algoritma ve Bulanık Mantık Kontrolörün Geliştirilmesi”, TOK’07 Otomatik Kontrol Ulusal Toplantısı, 83-88, İstanbul, 5-7 Eylül 2007 (in Turkish).
15. Alışkan İ., Gulez K., **Adam A. A.**, Cansever G., “Yapay Sinir Ağı Kontrollü AC-AC Dönüştürücü ile Gerilim Dalgalanmalarını ve Birleşik-Tuzak Filtre ile de Harmonikleri Düzenleyici Hibrid Sistem”, TOK’07 Otomatik Kontrol Ulusal Toplantısı, 318-322, İstanbul, 5-7 Eylül 2007 (in Turkish).

Books and Chapters:

- 1- **Ali Ahmed Adam Ismail**, “Torque Ripple and Noise Control in Permanent Magnet Synchronous Motor”, Scholars' Press /2014-12-22 Paperback / 228 Pages, ISBN-13: 9783639669060
- 2- **Ali Ahmed Adam** and Kayhan Gulez “Torque control of PMSM and Associated Harmonic Ripples”, a chapter in: “Torque Control”, INTECH , India, ISBN 978-953-307-428-3, 2011, p.153-198

Links to Research profile

- 1- https://www.researchgate.net/profile/Ali_Adam
- 2- <http://orcid.org/0000-0003-3525-8100>
- 3- https://scholar.google.ae/citations?hl=en&view_op=list_works&gmla=AJsN-F7DICGr1pKaF5a6XxkNv37RAnwYy3rcPT_IWkSUltOkx1vAdagmcl4ZqTXCvILr7ij6RUkyFdZ1qRZR_GAWMazTliwSw&user=8nY7knMAAAAJ

List of Courses Taught

Courses Taught in Fatih University-Istanbul Turkey (instruction language is English)

- 2008-2009 "**DIGITAL LOGIC DESIGN**", EEE 122/A, Credit:4
- 2008-2009 "**DIGITAL LOGIC DESIGN**", EEE 122/LAB A, Credit:4
- 2008-2009 "**ELECTRONIC CIRCUITS AND DEVICES**", EEE 292/A, Credit:4
- 2008-2009 "**ELECTRONIC CIRCUITS AND DEVICES**", EEE 292/LAB A, Credit:4
- 2009-2010 "**MECHATRONICS**", EEE 436/A, Credit:3
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/A, Credit:4
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/LAB A1, Credit:4
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/LAB A2, Credit:4
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/LAB A3, Credit:4
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/LAB A4, Credit:4
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/LAB A5, Credit:4
- 2009-2010 "**ELECTRICAL MACHINERY I**", EEE 361/A, Credit:4
- 2009-2010 "**ELECTRICAL MACHINERY I**", EEE 361/LAB A, Credit:4
- 2009-2010 "**CIRCUIT THEORY II**", EEE 202/A, Credit:4
- 2009-2010 "**CIRCUIT THEORY II**", EEE 202/LAB L1, Credit:4
- 2009-2010 "**CIRCUIT THEORY II**", EEE 202/LAB L2, Credit:4
- 2009-2010 "**CIRCUIT THEORY II**", EEE 202/LAB L3, Credit:4
- 2009-2010 "**CIRCUIT THEORY II**", EEE 202/LAB L4, Credit:4
- 2009-2010 "**DIGITAL LOGIC DESIGN**", EEE 122/A, Credit:4
- 2009-2010 "**DIGITAL LOGIC DESIGN**", EEE 122/LAB L1, Credit:4
- 2009-2010 "**DIGITAL LOGIC DESIGN**", EEE 122/LAB L2, Credit:4
- 2009-2010 "**DIGITAL LOGIC DESIGN**", EEE 122/LAB L3, Credit:4
- 2009-2010 "**LINEAR CONTROL SYSTEMS**", EEE 338/A, Credit:4
- 2009-2010 "**LINEAR CONTROL SYSTEMS**", EEE 338/LAB A1, Credit:4
- 2009-2010 "**LINEAR CONTROL SYSTEMS**", EEE 338/LAB A2, Credit:4
- 2009-2010 "**CIRCUIT THEORY I**", EEE 201/A, Credit:4
- 2010-2011 "**MECHATRONICS**", EEE 436/A, Credit:3 (MSc Course)
- 2010-2011 "**CIRCUIT THEORY I**", EEE 201/A, Credit:4
- 2010-2011 "**CIRCUIT THEORY I**", EEE 201/B, Credit:4
- 2010-2011 "**CIRCUIT THEORY I**", EEE 201/LAB L1, Credit:4
- 2010-2011 "**CIRCUIT THEORY I**", EEE 201/LAB L2, Credit:4
- 2010-2011 "**CIRCUIT THEORY I**", EEE 201/LAB L3, Credit:4
- 2010-2011 "**CIRCUIT THEORY I**", EEE 201/LAB L4, Credit:4
- 2010-2011 "**Neural Networks**", EEE 544/A, Credit:3 (MSc & PhD Course)
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/A, Credit:4
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/B, Credit:4
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/L1, Credit:4
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/L2, Credit:4
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/L3, Credit:4
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/L4, Credit:4
- 2010-2011 "**CIRCUIT THEORY II**", EEE 202/L5, Credit:4

- 2010-2011 "**LINEAR CONTROL SYSTEMS**", EEE 338/A, Credit:4
- 2010-2011 "**LINEAR CONTROL SYSTEMS**", EEE 338/L1, Credit:4
- 2010-2011 "**LINEAR CONTROL SYSTEMS**", EEE 338/L2, Credit:4
- 2012-2013 "**LINEAR SYSTEM THEORY-1**", EEE 505 Credit:3 (MSc & PhD)
- 2012-2013 "**Neural Networks**", EEE 544/A, Credit:3 (MSc & PhD)

Courses Taught in SUDAN Universities (Both Arabic and English languages)

1998-1999	“ELECTROMECHANICAL ENERGY CONVERSION” EE352, Omdurman Islamic university
1998-1999	“INTRODUCTION TO ELECTRICAL ENGINEERING” EE 212 Nyala University
1998-1999	“SOLID STATE PHYSICS” EE 222 Omdurman Islamic university
1998-1999	“SOLID STATE ELECTRONICS” EE.221 Omdurman Islamic university
1999-2000	“LOGIC DESIGN” EE 325 Omdurman Islamic university
1999-2000	“MICROPROCESSORS” EE 435 Omdurman Islamic university-sudan
1999-2000	“ELECTROMECHANICAL ENERGY CONVERSION” EE 351 Omdurman Islamic university
1999-2000	“ELECTROMAGNETIC THEORY” Zalingei University
2000-2001	“ELECTRICAL MACHINES” EE 454 Omdurman Islamic university
2000-2001	“POWER ELECTRONICS” EE 352 Alazahari university + Omdurman University
2000-2001	“ELECTROMAGNETIC1” EE 341 Omdurman Islamic university
2000-2001	“ELECTROMAGNETIC2” EE 342 Omdurman Islamic university
2007-2008	“CONTROL THEORY” EE 461 Omdurman Islamic university
2007-2008	“FUNDAMENTAL OF LOGIC DESIGN” EE231 Omdurman Islamic University
2007-2008	“FUNDAMENTAL OF ELECTRICAL SECINES” EE 211 Omdurman Islamic University
2007-2008	“ELECTRICAL SCIENCE” EE 212 Omdurman Islamic university
2007-2008	“POWER ELECTRONICS “EE 352 Omdurman Islamic university
2007-2008	“ELECTRICAL MACHINE CONTROL” EE5xx Universal African University
2008-2009	“DYNAMICS OF ELECTRICAL MACHINES” EE554 Universal African University
2008-2009	“FUZZY LOGIC CONTROL” EE562 Omdurman Islamic university
2008-2009	“NEURAL SYSTEM” EE 564 Omdurman Islamic university
2008-2009	“SPECIAL ELECTRICAL MACHINES” EE 557 Omdurman Islamic university
2008-2009	“ELECTRICAL CIRCUIT ANALYSIS” EE 315 Nyala University
2011-2012	“ELCTRICAL SCIENCES” . Omdurman Islamic University
2011-2012	“FUZZY LOGIC “, Omdurman Islamic University
2011-2012	“NEURAL NETWORK” , Omdurman Islamic University
2011-2012	“POWER SYSTEM ANALYSIS” , Nyala University
2011-2012	“POWER SYSTEM PROTECTION” , Nyala University
2012-2013	“DIGITAL SIGNAL PROCESSING” , Nyala University
2012-2013	“ELECTROMAGNETIC THEORY” , Nyala University
2012-2013	“DYNAMICS OF ELECTRICAL MACHINES” , Universal African University, Sudan
2012-2013	“ELECTROMAGNETIC THEORY 1” , Universal African University
2012-2013	“POWER ELECTRONICS” , Universal African University
2012-2013	“CONTROL OF POWER GENERATION” , Universal African University

Courses Taught in Sharjah University, UAE

2013-2014	“POWER ELECTRONICS”,
2013-2014	“ELECTROMECHANICAL SYSTEMS”,
2013-2014	“CIRCUIT THEORY I Lab.”,
2013-2014	“ELECTROMECHANICAL SYSTEMS Lab.”
2014-2015	“Electric power distribution”
2014-2015	“ELECTROMECHANICAL SYSTEMS”
2014-2015	“ELECTROMECHANICAL SYSTEMS Lab”
2014-2015	“Power System analysis”
2015-2016	“ELECTROMECHANICAL SYSTEMS”,
2015-2016	“ELECTROMECHANICAL SYSTEMS Lab”
2015-2016	“ELECTRIC POWER ENGINEERING”
2015-2016	“ELECTRIC POWER ENGINEERING LAB”
2015-2016	“ANALYSIS AND CONTROL OF ELECTRIC MACHINES”, <i>MSC course</i>
2016-2017	“ELECTROMECHANICAL SYSTEMS”
2016-2017	“ELECTROMECHANICAL SYSTEMS Lab”
2016-2017	“ELECTRIC POWER ENGINEERING”
2016-2017	“ELECTRIC POWER ENGINEERING LAB”
2016-2017	“CIRCUIT THEORY I”
2017-2018	“ELECTROMECHANICAL SYSTEMS”
2017-2018	“ELECTROMECHANICAL SYSTEMS Lab”
2017-2018	“CIRCUIT THEORY I”
2017-2018	“Special Topics in Power System”, <i>MSC course</i>