# Curriculum Vitae


**Dr. Afaf Fathy El Said Abdel-Kader.**

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**Job: Assistant Professor in Electrical Engineering(Electronics & Electrical communications Department) Zagazig high institute for engineering & technology – Zagazig - Egypt**

**Address: 33 Mohamed Zaghlol street – Dakados – Met Ghamr – Dakahlia- Egypt**

**Home telephone: 002-050-6902227**

**Mobile: 002-01212483122**


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## ⇨ Personal Details :

**Date of birth : 5 – 12 – 1979.**

**Nationality : Egyptian.**

**Gender : Female.**

**Religion : Moslem.**

## ⇨ Education :

**1- Ph.D. degree in Engineering specialty : Electrical Engineering**
**In the field of : Electrical Machines**
**Department of : Electrical Engineering**
**From: Minoufiya university**
**In : 22/8/2012.**
**The subject of thesis was about "Characteristics Improvement of Switched Reluctance Generator (SRG)".**

**2- M.Sc. degree in Engineering specialty : Electrical Engineering**
**In the field of: Electrical Machines**
**Department of: Electrical Power and Machines Engineering**
**From: Zagazig university**
**In : October 2006.**
**The subject of thesis was about "Developed Operation of switched reluctance motor (SRM)".**

**3- B.Sc. degree in Engineering specialty : (Electrical Engineering) Electrical Engineering,**
**From: faculty of engineering, Zagazig university.**
**Graduation year : may 2001.**

**Graduation grade :** **good (74,36%).**
**Graduation project grade :** **excellent.**

## ⇨ Foreign Languages :-

**English: passed the international test of English as a foreign language TOEFL.**

## ⇨ Professional career :-

- **Assistant Professor in Electrical Engineering (Electronics & Electrical communications Department) Zagazig high institute for engineering & technology from 2013 until now.**
- **Electrical engineer in ministry of agriculture from 2004 to 2013.**

| Institution | Address | Position(s) | Employment Dates | |
|---|---|---|---|---|
| | | | From | To |
| Workers university | Tanta – Egypt | instructor | 2003 | 2005 |
| Ministry of agriculture | Met Ghamr – Dakahlia – Egypt | Electric power engineer | 2004 | 2013 |
| Zagazig high institute for engineering & technology | Zagazig- Egypt | Assistant professor | 2013 | onwards |

## ⇨ Practical Experiences :

- **Experience in preparing machine laboratory.**
- **Experience in preparing Electric circuits' laboratory.**
- **Experience in preparing Electromagnetic field laboratory.**

- **Experience in teaching the following courses:-**
  - **Mathematics**
  - **Introduction to electrical machines**
  - **energy conversions**
  - **electric circuits**
  - **electric testing**
  - **principle of electrical engineering**
  - **electromagnetic fields**
  - **power electronics.**

- **Member of examination organization committee. Participate in control works for examinations.**
- **Participate in quality management unit works.**
- **Ability to work under pressure with a strong work ethic.**

## ⇨ Training Courses in language skills:

**1-. In TOEFL program from Zagazig university, during the period from 12/7/2005 to 30/8/2005. the score was 443.**

**2- AMDEAST from Zagazig university. The test date was 19/5/2012 with score 423.**

## ⇨ Training Courses in Computer skills:

1- **In CIW professional application, provided by the ministry of communication and information technology in cooperation with IBM Egypt. Program spent six months during the period from 9/12/2001 to 13/6/2002.**

**2-In ICDL program spent three months, from Zagazig university. The course was about Ms- Dos, Windows and Spsswin. During the period from 4/6/2005 to 5/9/2005.**

## ⇨ Training Courses in ensuring the quality of teaching & learning :

1- **Self- evaluation & self- study التقويم الذاتى والدراسة الذاتية**
2- **Strategic planning التخطيط الإستراتيجى**
3- **Leadership & governance القيادة والحوكمة**
4- **Faculty members & assisting staff أعضاء هيئة التدريس والهيئة المعاونة**
5- **Quality & development department إدارة الجودة والتطوير**
6- **Administrative device الجهاز الإدارى**
**8- Financial and administrative resources الموارد المالية و الإدارية**
**9- Academic standards and educational programs المعايير الأكاديمية و البرامج التعليمية**
**10- Teaching and learning التدريس والتعلم**
**11- Scientific research and scientific activities البحث العلمى والأنشطة العلمية**
**12- Community participation and environmental development المشاركة المجتمعية و تنمية البيئة**

## Participated on the following conferences :-

**Thirteen international middle-east power systems conference MEPcon`2009**

## ⇨ Published Papers in the Journals and conferences :

1- Mahmoud M. Elkholy, Hamid M. Elshwey and **Afaf F. Abdel-kader**, "Developed Operation of Switched Reluctance Motor by Advancing the Switched On Angle" Thirteen international middle-east power systems conference MEPcon`2009, pp. 344- 349,december 2009.
2- F. M. El-kholy and **A. F. Abdel-kader**, "Transient characteristics of cylindrical stator 6/2 Switched Reluctance Generator", Engineering Research Journal, Minoufiya University, Vol. 33, No. 4, October 2010, pp: 315-323.
3- F. M. El-kholy and **A. F. Abdel-kader**, "Average characteristics of cylindrical stator 6/2 Switched Reluctance Generator", Engineering Research Journal, Minoufiya University, Vol. 34, No. 2, April 2011, pp: 111-117.
4- Mahmoud M. Elkholy, **A. Fathi Abd-Elkader**, "Optimal energy saving of doubly fed induction motor based on scalar rotor voltage control and water cycle algorithm", COMPEL: The International Journal for Computation and

Mathematics in Electrical and Electronic Engineering, Vol. 38 No. 2, 2019. pp. 793-814.

## ⇨ Participate in reviewing scientific research in journal of Engineering and applied Science-JEAS-D-23-01135 at springer site. And this is my review history in journal

My Review History - Afaf Fathy Abdelkader, Ph.D.

Close

Current Review Statistics

| Date Last Agreed | Reviews in Progress | Outstanding Invitations |
|---|---|---|
| 11 Sep 2023 | 0 | 0 |

Historical Reviewer Invitation Statistics

| Total Invitations | Agreed to Review | Declined to Review | Un-invited Before Agreeing to Review | Review Cancelled Before Agreeing to Review |
|---|---|---|---|---|
| 5 | 5 | 0 | 0 | 0 |

Historical Reviewer Performance Summary

| Total Completed Reviews | Submitted on Time | Submitted Late | Un-assigned After Agreeing to Review | Review Cancelled After Agreeing to Review | Date Last Review Completed |
|---|---|---|---|---|---|
| 5 | 5 | 0 | 0 | 0 | 18 Sep 2023 |

Historical Reviewer Averages

| Days to Respond to Invitation | Days to Complete Review | Days Late | # of Reminders |
|---|---|---|---|
| 0 | 4 | -13 | 0 |

Reviewer Recommendation Summary

| | |
|---|---|
| Accept: | 2 |
| Major Revision: | 0 |
| Minor Revision: | 3 |
| Reject: | 0 |

Completed Reviews

| MS Number | Date Invited | Date Agreed | Date Completed | Days Late | # of Reminders | Recommendation |
|---|---|---|---|---|---|---|
| JEAS-D-23-00026 | 03 Apr 2023 | 03 Apr 2023 | 06 Apr 2023 | 0 | 0 | Minor Revision |
| JEAS-D-23-00026R1 | 16 Jun 2023 | 16 Jun 2023 | 18 Jun 2023 | 0 | 0 | Accept |
| JEAS-D-23-00502R1 | 30 Jul 2023 | 31 Jul 2023 | 01 Aug 2023 | 0 | 0 | Accept |
| JEAS-D-23-00502 | 21 May 2023 | 22 May 2023 | 01 Jun 2023 | 0 | 0 | Minor Revision |
| JEAS-D-23-01135 | 11 Sep 2023 | 11 Sep 2023 | 18 Sep 2023 | 0 | 0 | Minor Revision |

Close

## ⇨ Research Interests

- **Energy conversion.**
- **A Study on Generator Capacity for Wind Turbines Under Various Tower Heights and Rated Wind Speeds Using Weibull Distribution.**
- **Effects of Armature Winding Segmentation with Multiple Converters on the Short Circuit Torque of 10-MW Superconducting Wind Turbine Generators.**
- **Renewable energy technologies.**
- **Power generation from wind turbine.**
- **Performance Analysis of Transformer-less Dynamic Voltage Restorer**

**Power electronics.**

- **Magneto-Gravitational Separation and Magneto-Gravitational Chromatography— Fundamental Concepts and Some Examples.**
- **Electrical power engineering.**
- **Matlab simulation.**

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## Teaching statement

I started teaching academic courses since October 2013. I taught to under graduated students with the credit hours system. The following list shows the description of these courses:

| Course | Description |
|---|---|
| Introduction to electrical machines | • Theories of magnetic circuits<br>• Single & three phase transformer<br>• Direct current generator<br>• Direct current motor<br>• Speed control of direct current motor<br>• Three phase induction motor |
| Energy conversion | • Three phase synchronous generator |
| Electromagnetic fields | • Vector coordinate systems (rectangular-cylindrical - spherical)<br>• Electric field calculations<br>• Magnetic field calculations |
| Electrical circuits (1) | • Theories of electric circuits (Kirchhoff law-Thevenin law – Norton law) for dc circuits.<br>• R-L circuit- R-C circuit- R-L – C circuit. |
| Electrical circuits (2) | • Theories of electric circuits (Kirchhoff law-Thevenin law – Norton law) for AC circuits.<br>• Three phase balanced AC circuits |
| Engineering mathematics | • Differential equations<br>• Integration equation |
| Electrical tests | • Test on single phase transformer (open circuit-short circuit – load test)<br>• Test on three phase transformer (open circuit-short circuit – load test)<br>• Test on dc generator (open circuit- locked rotor – load test)<br>• Test on dc motor (open circuit - locked rotor – load test)<br>• Test on three phase induction motor (open circuit - locked rotor – load test) |
| Electrical devices & | • Units- dimensions |

| | |
|---|---|
| measurements | • analog ammeter<br>• analog voltmeter<br>• analog wattmeter<br>• analog oscilloscope |
| Electronic measurements | • Dc bridge-AC bridge<br>• Types of oscilloscope –<br>• digital voltmeter –<br>• Af oscillators –<br>• energy meter – frequency meter – wattmeter<br>• current & voltage transformer |
| Engineering electronics | • diode<br>• transistor<br>• thyristor |

## 2- I prepared text book for under graduated students as:

| s | Name of text book | References |
|---|---|---|
| 1 | Introduction to electrical machines | 1- Electrical technology volume 2 AC&DC machines", BL Theraja & B.K Theraja |
| 2 | Energy conversion | 1- Electrical technology volume 2 AC&DC machines", BL Theraja & B.K Theraja<br>2- Academia.edu and Uettaxila.edu.pk |
| 3 | Electrmagnetic fields | electromagnetic fields by William hayt. |
| 4 | Electrical circuits 1 | 1- B. L. Theraja & A. K. Theraja (2005) "Electrical technology". S. CHAND & COMPANY LTD.<br>2- Electric Circuits, 10th Edition. James W. Nilsson. Susan Riedel<br>3- Joseph A. Edminister, MSE "Electrical Circuits CHUME SERIES |
| 5 | Electrical circuits 2 | 1- Electric Circuits, 10th Edition. James W. Nilsson. Susan Riedel. |
| 6 | Electrical tests | 1- Electrical technology volume 2 AC&DC machines", BL Theraja & B.K Theraja<br>2- Academia.edu and Uettaxila.edu.pk |
| 7 | Electronic measurements | 1- "Electrical and Electronics Measurements and Instrumentation", Prithwiraj Purkait, Budhaditya Biswas, Chiranjib Koley & Santanu Das |
| 8 | Electrical devices & measurements | 1- "Electrical and Electronics Measurements and Instrumentation", Prithwiraj Purkait, Budhaditya Biswas, Chiranjib Koley & Santanu Das |

## 3-I prepared laboratory experiments of:

- Electromagnetic fields
- Electrical machines.
- Electrical circuits.

All prepared courses satisfy the National Academic Reference Standards (NARS)

## 4-I participate in graduation projects, such as:

- Solar energy harvesting system by using solar tractor.
- Accident avoiding system with crash detection & GPS notification.
- Robot arm controlled wirelessly by Hand motion.
- Automotive safety car.
- Metal detector & landmine robotic vehicle.
- Fire fighting robot.

**Thank you for your time**
**Dr. Afaf Fathy Alsaid Abdelkader**