

# CV

## **Mohamed Ebrahim El-Adawy**

Prof. at the Faculty of Engineering, Helwan University, Helwan, Cairo,  
Egypt, Department of Electronics and Communications Engineering  
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### **1- Personnel Data**

Name: Mohamed Ebrahim El\_Adawy  
Date Of Birth: May 9, 1951  
Nationality: Egyptian  
Status: Married, father for a son, and two girls.

### **2- Education**

1. B. Sc in communication and electronics, Assuit University, Assiut, Egypt, May 1974 with grade excellent.
2. M. Sc in electronics, Cairo University, Egypt, June 1978 "New binary sequence generator and filter"
3. Ph. D. in medical electronics, University of Connecticut, USA, December 1983, "Application of thermodynamic theory of generalized fields to the investigation of biological cell membrane voltage"

### **3- Jobs**

1. Since 3-10-1975, Demonstrator at the faculty of engineering and technology, Dept. of Communication and electronics, Helwan University, Helwan, Cairo, Egypt.
2. Since 26-6-1978 Assistant teacher at the same Dept.
3. since 15-4-1984 Teacher at the same Dept.
4. Since 30-12-1990 Assistant Prof. at the same Dept.
5. Since 30-11-1997 Prof. at the same Dept.
6. From 2-9-1998 to 2-9-2004 Head of the Dept. of electronics and communications engineering, Helwan University, Helwan, Cairo, Egypt.
7. From 11-6-2005 till now Vice Dean for student affairs at the same faculty.

### **Applied, Scientific, and Social Activities**

1. Many social activities inside the department
  - Head of the department for 6 years
  - Installation and writing notes for some labs in the department.
  - Supervision of the weekly department seminar.
  - Supervision of many social occasions in the department.
2. Member of the project of "Engineering Higher education Development", Ministry of Higher Education where I supervised the installation of the following labs:
  - Installation of an electronics lab at the faculty of engineering, Cairo University.
  - Installation of electronics lab at the faculty of engineering, Ain Shams Univ.
  - Installation of control and systems lab at the faculty of engineering, Ain Shams Univ.

- Installation of microprocessors lab at the faculty of engineering, Kafr Elshekh Univ.
  - Installation of electrical engineering lab at the faculty of engineering, Assiut Univ.
3. Preparing and teaching many short courses in electronics, electronic measurements, microprocessor, and computer programming for the engineers and technicians at Toura Cement Factory.
  4. Teaching many short courses in microprocessor and its applications for the engineers at the Industrial Arab Organization.
  5. Teaching many short courses in Microprocessors and Microcontrollers for the engineers at the JELECOM company for communication.
  6. Teaching condensed courses about digital signal processing at the Information Technology Institute, ITI, communication ministry.
  7. Teaching condensed courses about Microcontrollers and embedded systems at the Information Technology Institute, ITI, communication ministry.
  8. Teaching condensed courses about decision support systems at the Information Technology Institute, ITI, communication ministry.
  9. The author of "Microprocessors", a book in Arabic language, Dar Teba for publishing and distribution, I.S.B.N.977-282-076-5, 1997.
  10. The author of "Digital Electronics, Theory and Practice", a book in Arabic language, Dar Teba for publishing and distribution, 2000.
  11. The author of "Computer Interfacing", a book in Arabic language, Dar Teba for publishing and distribution, 2002.
  12. The author of "Microcontrollers", a book in Arabic language, Dar Teba for publishing and distribution, 2005.
  13. Participated with others in the translation into Arabic of a book "Programming with C++" Shum Series, Aldar Aldawlea for cultural investment, 2000.
  14. Participated with others in the translation into Arabic of a book "Programming using C++" Easy Shum Series, Aldar Aldawlea for cultural investment, 2001.
  15. Supervision of many graduation projects, some of them won the prize of the annual engineering day in Egypt.
  16. Member of the faculty council of the Industrial Education faculty in Cairo, 1998-2005.
  17. Member of the committee of the development of higher education, project number 9, 2005.
  18. Member of the committee of the development of technical secondary school education (5 years system), electronics and computers section, since November 2007, and working until now.
  19. Referee in the committee of Alshrook Academy prize, Electronics section 2007.
  20. Supervision of many M.Sc and PhD students.
  21. Referee member for many MSc and PhD thesis in almost all Egyptian Universities.
  22. Publication of many technical papers in electronics, medical electronics, signal processing, image and sound processing, computers, and medical signal processing.
  23. I have my own internet site that includes many scientific services for students.
  24. Multimedia course about microprocessors and microcontrollers under publication by ICT Helwan University, 2007.

## **4- Supervision of M. Sc. And Ph. D. Students**

1. "Arabic character recognition" Thesis submitted by H. A. Keshk, 1988
2. "Direct method for designing higher order digital filters" Thesis submitted by E. Shafie, 1988.
3. "Investigation of multisections cascaded digital filters" Thesis submitted by E. Radwan 1997.
4. "Recognition of hand written Arabic characters" Dissertation submitted by A. Abd-Haleem 2002.
5. "Multichannel image processing" Dissertation submitted by N. Nassar 2003.
6. "Training of neural networks by genetic algorithms" Thesis submitted by M. El-Taeb, 2002.
7. "Separation of Sound and Music signals" Thesis submitted by A. Wahba, 2003.
8. "Person identification through hand geometry measurements" R. I. Mobarak, 2004.
9. "Image compression based on fractal representation in the transform domain" Thesis submitted by Hoda A. Elmogazy. 2005
10. "Code book design in transform vector quantization" Thesis submitted by Nora S. Muharram 2005
11. "Transmission control protocol (TCP) over packet radio service performance analysis" Thesis submitted by Mahitab S. El-Attar. 2005

## **Published Papers**

1. Melehy M. A. , El-Adawy M. I. , and Northrop R. B. "Thermodynamic field theory of biological cell membrane EMF" Proceedings of the 35<sup>th</sup> annual conference on engineering in medicine and biology, September 22-24, 1982, Vol.24 P.191.
2. Melehy M. A. , El-Adawy M. I. , and Northrop R. B. "Resting potential of the biological cell membrane, an application of the thermodynamic theory of generalized fields" Proceeding of the international conference signals and systems, Al-Ain(U.A.E), Jan. 29-31, 1990, AMSE press, Vol.4, pp.147-153.
3. M. I. El-Adawy, and M. E. Abu El-Wafa "A bitwise flash method for analog to digital converter" Proceedings of th international AMSE Conference, Modeling and Simulation, Cairo (Egypt), March 2-4 1987, Vol.2B, PP.17-22.
4. Mohamed I. El-Adawy, Nabil N. Hanna, and Hesham A. Keshk "Recognition of the voiced Arabic letters and its application to voice operated typewriters" Proceedings of the 2<sup>nd</sup> international conference on microelectronic engineering and its application in microcomputers in developing countries. December 20-24, 1987, El-Kanater El-Khairia, Cairo, Egypt, pp. 87-95.
5. S. M. Saad, M. I. El-Adawy, and E. Shafei "Direct design method of high order digital filters" Proceedings of the 5<sup>th</sup> national radio science conference Feb.16-18, 1988, Cairo, Egypt, pp.1.C8-8.C8.
6. M. I. El-Adawy "Voltage current relations for voltage clamped biological cell membrane, an application of the thermodynamic theory of generalized fields" Proceedings of the international conference, Signals and systems, Al-Ain(U.A.E) Jan.29-31, 1990, AMSE Press Vol.4, pp.141-146.
7. Ibrahim Fatouh El-Sayed, M. I. El-Adawy and I. I. Ibrahim "Microcomputer based adaptive technique for wide range angular speed measurement" Proceeding of the

- international conference , Signals and Systems, Al-Ain(U.A.E), Jan.29-31, 1990, AMSE Press, Vol.2, pp.119-128.
8. Ibrahim Fatouh El-Sayed, I. I. Ibrahim, and M. I. El-Adawy "A New technique to generate a 3-phase reference sine wave for inverter fed induction machine system" Proceedings of the AEC89 Al-Azhr engineering first conference Dec. 9-12, 1989, pp.241-249, Cairo, Egypt.
  9. Mohamed I. El-Adawy, Nabil N. Hanna, and Hesham A. Keshk " A new technique for the recognition of the voiced Arabic characters" Proceedings of the 7<sup>th</sup> National radio science, Feb,30-33, 1990, pp.C18-9.C18.
  10. El\_Adawy M. I. "Neural network for the detection of the frequency contents of a short time signal" Engineering Research Bulletin, Helwan University, Volume 4, August 1994, PP. 328-336.
  11. El\_Adawy M. I. and I. I. Ibrahim "Frequency spectrum of the electrocardiogram using neural networks" Bulletin Of The Faculty Of Engineering, Assiut University, Vol.24, No.1 January 1996, PP.131-135.
  12. I. I. Ibrahim, and El\_Adawy M. I. "A neural network for speaker identification" Engineering Research Journal, Helwan Univ. Volume 4, April 1995, PP. 252-258.
  13. I. I. Ibrahim and El-Adawy M. I. "A neural network approach for the determination of the LPC coefficients" Proceedings of 2<sup>nd</sup> international conference on engineering research ICER95 Port Said, Cairo Egypt. December 19-21 1995, Vol.1, pp306-312.
  14. El-Adawy M. I. "Realization of a 4-bits arithmetic and logic unit using neural networks" Proceedings of 2<sup>nd</sup> international conference on engineering research ICER95 Port Said, Cairo Egypt. December 19-21 1995, Vol.1, pp299-305.
  15. El-Adawy M. I., I. I. Ibrahim, and Omar Salem "Realization of a 4-bits division using neural networks" Proceedings of Al-Azhar engineering 4<sup>th</sup> international conference AEIC95 Cairo Egypt. December 16-19 1995, Vol.11, pp106-111.
  16. El\_Adawy M. I. "A simplified backpropagation training algorithm for the multilayer neural networks "Bulletin Of The Faculty Of Engineering, Assiut University, Vol. 23, No. 2, July 1995, PP.221- 226.
  17. El\_Adawy M. I., I. I. Ibrahim "An N-comparators, N-bits, flash analog to digital converter" Bulletin Of The Faculty Of Engineering, Assiut University, Vol.25, No.1 January 1997, PP.127-132.
  18. El\_Adawy M. I. "Pyramid like neural network image compression technique"Bulletin Of The Faculty Of Engineering, Assiut University, Vol.25, No.1 January 1997, PP.1139-144.
  19. E. M. Saad, M. I. El\_Adawy, and E. A. Radwan "Implementing high order digital filters in a cascade form suitable for real time applications "Proceedings of the 14<sup>th</sup> National Radio Science Conference (NRSC'97), Cairo University, March 23-25, 1997, pp 1C23-9C23.
  20. Ebada S. A. Sarhan, M. I. El-Adawy, and Aliaa A. A. Yousef " Segmentation of the written Arabic characters " Proceedings of the eighth international conference on artificial intelligence application, ICAIA, Cairo International Conference Center, Cairo, February 3-6, 2000 pp. 261-267.
  21. M. I. El-Adawy, M. I. Dessouky, M. M. Hadhoud, N. M. Nassar " Fractal attractor technique for image compression" Proceedings of Al-Azhar Engineering Sixth International Conference, AEIC, Al-Azhar University, Cairo, Vol5, pp96-105.
  22. M. M. El Tayeb, H. A. Keshk, M. E. Aboul-Wafa and M. I. El\_Adawy "A Soft Back Propagation Algorithm For Training Neural Networks" Journal Of

- Engineering Sciences, Faculty Of Engineering, Assiut University, Vol.30, No.1 January 2002, PP.241-248.
23. E. M. Saad, M. I. El-Adawy, M. E. Abu-Elwafa, and A. A. Wahba "A multifeature speech/music discrimination system" .Proceedings of the U. R. S. I. 2002, PP208-213.
  24. M. I. El-Adawy, M. E. Abu-Elwafa, H. A. Keshk, and M.M. El-Tayeb "A soft back propagation algorithm for training neural networks" Proceedings of the U. R. S. I. 2002, PP397-404..
  25. E. M. Saad, M. I. El-Adawy, and Shahera M. Habashy "Ant Colony Algorithm, Theory and Applications" The first URSI Egypt Workshop on Signal processing PP12-31 20May2004.
  26. E. M. Saad, M. I. El-Adawy, M. A. Ismail, and H. I. Ali "An Arabic to English Machine Translation System" Proceedings of the Egyptian society of language engineering, The 4<sup>th</sup> conference on language engineering CLE2003, October 21, 22 2003 Cairo, Egypt.
  27. H. M. El-Bolok, M. I. El-Adawy, M. E. Abou E-Wafa, and R. I. Mubarak "Person Identification Through Hand Geometry Measurements" Journal of Engineering Sciences, Assiut University, Vol.32, No.4, September 2004, PP1661-1672.
  28. Mohamed El-Adawy, Hesham Keshk, and Mona M. Haragi "Automatic license plate recognition" Third Saudi Technical Conference and Exhibition 11-15 Dec. 2004, Vol.III, PP1-6.
  29. Mohamed El-Adawy, Hesham Keshk, Manal A. Ismail, and Essam M. Zaki "Fast skew and slant correction for Arabic Written word or line" Third Saudi Technical Conference and Exhibition 11-15 Dec. 2004, Vol.III, PP7-12.
  30. E. M. Saad, M. El-Adawy, H. A. Keshk, and Shahira M. Habashy "Reconfigurable parallel processor system based on ant colony algorithm" Al-Azhar Engineering Eighth International conference Dec. 24-27, 2004, Vol.8, No.7, Jan.2005.
  31. S. H. Zainud-Deen, K. R. Mahmoud, M. I. El-Adawy, Sabry, M. Ibrahim "Design of Yagi-Uda Antenna and Electromagnetically Coupled Curl Antenna Using Particle Swarm Optimization Algorithm" Twenty Second National Radio Science Conference (NRSC 2005) March 15-15 2005, Cairo, Egypt, B6-3, B6-9
  32. M. El Adawy <sup>1</sup>, Aan Ali <sup>2</sup>, Ahmed Farag <sup>3</sup> and AlShimaa Abd-Elaal <sup>4</sup>" MULTIVARIATE FEATURES EXTRACTIONFOR DETECTION OF EPILEPTIC SEIZURES IN ELECTROENCEPHALOGRAM" *IEEE CCsC Code: 0-7803-9770-3/06/\$20.00 ©2006 IEE*
  33. Marwa M. A. Hadhoud, Mohamed I. Eladawy, and Ahmed Farag "Computer Aided Diagnosis of Cardiac Arrhythmias" 1-4244-0272-7/06/\$20.00 ©2006 IEEE
  34. M. El Adawy <sup>1</sup>, Aan Ali <sup>2</sup>, Ahmed Farag <sup>3</sup> and Alshimaa Abd-Elaal" DIFFERENT SIGNAL REPRESENTATIONS FOR DETECTION OF EPILEPTIC SEIZURES IN ELECTROENCEPHALOGRAM" ICENCO 2006
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