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## CURRICULUM VITA

NAME : Kamal Hassan Awadalla  
BIRTH DATE : 1st Feb. 1943  
PLACE OF BIRTH : El-Menshat Al-Kobra  
- El-Santa – Gharbiya - Egypt  
RESIDENCE : Nasr City , Cairo  
MARITAL STATUS : Married with three children  
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### UNIVERSITY EDUCATION:

1964: B.Sc. Dept. of Electrical Engineering ( Communications Section ), Faculty of Engineering, Cairo University, Giza, Egypt. (Full time student in a five years system).

1972: M.Sc. Dept. of Electrical Engineering ( Communications Section ), Faculty of Engineering, Cairo University, Giza, Egypt. (Part time student, and It was by research). It was titled "Frequency and Phase Discriminators and Applications".

1978: Ph.D., Dept. of Electrical and Electronic Engineering, University of Birmingham, Birmingham, UK. (Full time student, and it was by research). It was titled "Wire Antennas on Finite Size Ground Planes: Applications in Mobile Communications".

### PROFESSIONAL CAREER:

1964 to 1972 Demonstrator in the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt. ( At that time it was called " The Higher Institute for Electronics " )

1972 to 1978 Research student in the Electrical and Electronic Engineering Dept., University of Birmingham, Birmingham, UK.

1978	to	1982	Lecturer in the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt.
1982	to	1986	Associate Professor in the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt.
1986	to	1987	Professor and Head of the Radio Engineering Dept. in the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt.
1987	to	1989	Visiting Professor in the Electrical and Electronic Engineering Dept., Southampton University, Southampton, UK.
1989	to	1991	Head of the Electrical Communications Engineering Dept. in the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt.
1991	to	1992	Vice Dean for Post-Graduate Studies and Research in the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt.
1992	to	1998	Staff member in the Jeddah Telecommunication College, Jeddah, Saudi Arabia.
1998	to	2001	Dean of the Faculty of Electronic Engineering, Menoufiya University, Menouf, Egypt.
1986	to	2003	Professor in the Dept. of communications and Electronic Engineering - The Faculty of Electronic Engng. - Menoufiya University
2003	to	Present	Professor emeritus in the Dept. of communications and Electronic Engineering - The Faculty of Electronic Engng. - Menoufiya University

#### SCIENTIFIC AND ENGINEERING SOCIETIES:

- Member of the Institute of Electrical and Electronic Engineers (IEEE).
- Member of the IEEE Antennas and Propagation Society.
- Member of the IEEE Microwave Theory and Techniques Society.
- Ex-Member of the IEEE Electromagnetic Compatibility Society.
- Member of the Egyptian Syndicate for Engineers.

- Ex-Member of the Engineering Sector Committee of the Higher Council for Universities.
- Ex-Member of the Committee for associate professors promotion at the Higher Council for Universities.
- Member of the National Radio Science Committee of the Academy for Science and Technology.
- Member of the referees group of the supreme council for Universities.
- A referee for some of the national and international periodicals and conferences.

### UNIVERSITY BOARDS

- Member of the Department of Electronics and Communications Eng. Council.
- Ex-Member of the Faculty Post-Graduate Education Committee.
- Ex-Member of The Faculty Council.
- Ex-Member of the University Post-Graduate Education Council.
- Ex-Member of the University Council.

### CONFERENCES:

The following conferences have been attended.

- 1- Operations Research Conference, Zagazig University, Zagazig, Egypt. (Seventh 1981, Eighth 1982, Ninth 1983).
- 2- The International Congress for Statistics, Computer Science, Social and Demographic Research, Ain-Shams University, Cairo, Egypt. (Sixth 1981, Ninth 1984).
- 3- The International Symposium on Modelling and Development (IASTED), Cairo, Egypt, 1981.
- 4- The National URSI Symposium, Cairo, Egypt. (First 1983, Third 1985, Fourth 1986).
- 5- The International Symposium on Antennas and Propagation (ISAP), Kyoto, Japan, 1985.

- 6- The International 87 Cairo Conference, Modelling and Simulation, AMSE, Cairo, Egypt, March 1987.
- 7- The International Symposium on Antennas and Propagation ( ISAP'92 ), Sapporo, Japan, 1992.
- 8- Fourth Saudi Engineering Conference, The Faculty of Engineering, King Abdulaziz University, Jeddah, Saudi Arabia, Nov. 1995.
- 9- The Sixteenth National Radio Science Conference NRSC'99, Cairo, Egypt. Feb. 1999.
- 10- The Seventeenth National Radio Science Conference NRSC'2000, Menoufiya, Egypt. Feb. 2000.
- 11- The Twentieth National Radio Science Conference NRSC'2003, Cairo, Egypt. Feb. 2003.
- 12- The Twenty First National Radio Science Conference NRSC'2004, Cairo, Egypt. March. 2004.
- 13- The Twenty Second National Radio Science Conference NRSC'2005, Cairo, Egypt. March. 2005.
- 14- The Twenty Third National Radio Science Conference NRSC'2006, Menouf, Egypt. March. 2006.
- 15- The Twenty Fourth National Radio Science Conference NRSC'2007, Ain-Shams-University, Cairo, Egypt. March. 2007.
- 16- The Twenty Fifth National Radio Science Conference NRSC'2008, Tanta-University, Tanta, Egypt. March. 2008.
- 17- The Twenty Ninth General Assembly of the International Union of Radio Science, Chicago, Illinois, USA, August 7-16, 2008.
- 18- The Twenty Sixth National Radio Science Conference NRSC'2009, Future University, New-Cairo, Egypt. March. 2009.

SCIENTIFIC SCHOOL:

I have contributed in supervising more than thirty M.Sc. students and more than five Ph.D. students. All of them have obtained their degrees. The majority of them were working in the field of antennas and electromagnetics.

### PUBLICATIONS:

More than 60 papers has been published in national and international periodicals and conferences..

### **LIST OF PUBLICATIONS**

- 1- K.H.Awadalla & T.S.M.Maclean,"Input impedance of a monopole antenna at the center of a finite ground plane," IEEE Trans. Ant.&Prop., Vol. AP-26, No. 2, March 1978, pp. 244-248.
- 2- K.H.Awadalla & T.S.M.Maclean,"Monopole antenna at center of circular ground plane: Input impedance and radiation pattern," IEEE Trans. Ant.&Prop., Vol. AP-27, No. 2, March 1979, pp. 151-153.
- 3- K.H.Awadalla,"Direction diversity in mobile communications," IEEE Trans. Veh. Tech., Vol. VT-30, No. 3, Aug. 1981, pp. 121-123.
- 4- K.H.Awadalla & E.S.Fares,"Monopole antenna at center of circular ground plane using radial wires approximation," Sixth International Congress for statistics, computer science, social and demographic research; Ain Shams University, Cairo, Egypt, March 1981, Vol. III, pp. 459-470.
- 5- K.H.Awadalla & A.T.Shalaby,"Monopole antenna at center of square ground plane: Input impedance and radiation pattern," Proc. of the Seventh Annual Operations Research Conference, Zagazig University, Zagazig, Egypt, Feb. 1981, pp. 108-126.
- 6- K.H.Awadalla & A.S.Fares,"Computer solution for a monopole on a square unbounded wire mesh," Proc. of the IASTED International Symposium on Simulation, Modelling, and Development, Cairo, Egypt, Sept. 1981, pp. 13-16.
- 7- K.H.Awadalla & A.S.Fares,"Monopole antenna at center of square ground plane using wire mesh approximation," The Armed Forces Scientific Research Bulletin, Vol. XV, No. 32, Jan. 83, pp. 21-27.

- 8- K.H.Awadalla, A.E.Sharshar & S.El-halafawy,"Computer solution of a square loop antenna," Proc. of the Eighth Annual Operations Research Conference, Zagazig University, Zagazig, Egypt, Feb. 1982, pp. 627-634.
- 9- M.N.E.Fahmy, K.H.Awadalla & A.E.Mahmoud,"Computer solution of the vee dipoles," Proc. of the Eighth Annual Operations Research Conference, Zagazig University, Zagazig, Egypt, Feb. 1982, pp. 676-684.
- 10- H.A.Elmikati, K.H.Awadalla, A.A.Nabawi & S.H.Zainud-Deen,"Fields and currents of a spherical reflector illuminated by an electric dipole," Proc. of the Ninth Annual Operations Research Conference, Zagazig University, Zagazig, Egypt, Feb. 1983, pp. 197-212.
- 11- K.H.Awadalla & S.El-halafawy,"Two parallel loop antennas," National URSI-Symposium 1983, Military Technical College, Cairo, Egypt, Feb. 1983, pp. 285-295.
- 12- K.H.Awadalla & M.N.E.Fahmy & A.I.Mahmoud,"Monopole on the vertex of a conducting cone," Proc. of IEEE Melcon'83, Vol. I, Paper No. B6.11, Athens, Greece, May 1983.
- 13- K.H.Awadalla & M.N.I.Fahmy & A.S.Abu-Elazm,"Radiation from a monopole on a finite circular conducting disk,"Proc. of the Ninth International Congress for Statistics, Computer Science, Social and Demographic Research, April 1984, Vol. 6, Ain-Shams University, Cairo, Egypt, pp. 361-374.
- 14- K.H.Awadalla & A.A.Sharshar,"A simple method to determine the impedance of a loop antenna," IEEE Trans. Ant. & Prop. , Vol. AP-23, No. 11, Nov. 84, pp. 1248-1251.
- 15- K.H.Awadalla , M.G.El-Kholy & M.N.I.Fahmy,"The asymmetry in log-periodic dipole antenna," The Third National Radio Symposium (URSI) Military Technical College, Cairo, Feb. 1985, pp. 65-79.
- 16- M.N.I.Fahmy, K.H.Awadalla & M.A.Benjamin,"Radiation from segmented exponential wire dipoles," Proc. of the Jordan International Electrical and Electronic Engineering Conference, April 1985, Amman, Jordan, pp. 546-548.

- 17- K.H.Awadalla & S.M.A.El-Halafawy,"The mutual impedance of two crossed loop antennas," Proc. of the International Symposium on Antennas and Propagation (ISAP), Japan, Vol. II, Aug. 1985, Kyoto, Japan, pp. 493-496.
- 18- M.N.I.Fahmy, K.H.Awadalla, M.Benyamin & A.Bahnacy,"Radiation characteristics of rhombic wire dipole antennas," Forth National Radio Science Symposium (URSI), Military Technical College, Cairo, Egypt, Egypt, Nov. 1986, Paper B2, pp. 1-14.
- 19- K.H.Awadalla, "An experimental comparison between two methods for measuring the ground conductivity," Modelling, Simulation & Control, A, Vol. 11, No. 2, 1987, pp. 11-17.
- 20- K.H.Awadalla & H.A.Sharshar,"A simple technique for solving the electrostatic problem," International 87 Cairo Conference, Modelling & Simulation, AMSE, Cairo, Egypt, March 2-4, 1987.
- 21- S.H.Zainud-Deen, T.S.M.Maclean, K.H.Awadalla & M.N.I.Fahmy,"Air-dielectric microstrip antennas on finite size ground planes," Proc. of ISAP '89, Sapporo, Japan, 1989, pp. 13-16.
- 22- S.H. Zainud-Deen, T.S.M. Maclean, M.N.I. Fahmy and K.H. Awadalla, "Analysis of Air-dielectric Microstrip Antenna on Finite Ground Plane," International Conference on Electromagnetic in Aerospace Applications," ICEAA, 1989, Torino, Italy.
23. S.H. Zainud-Deen, T.S.M. Maclean, K.H. Awadalla, and M.N.I. Fahmy, "Mutual Impedance between Two Air-dielectric Microstrip Antennas," Symposium on Antenna Technology and Applied Electromagnetic, ANTEM, 1990, Mantitoba, Canada.
- 24- K.H.Awadalla, S.H.Zainud-Deen, and Hamdy A. Sharshar," The Small Circular Helical Antenna: A More Exact Analytical Solution," Proc. 1992, International Symposium on Antennas and Propagation ( ISAP'92 ), Vol. 4, pp. 1157-1160, Sapporo, Japan, 1992.
- 25- K.H.Awadalla, S.H.Zainud-Deen, and Hamdy A. Sharshar," Analysis of Normal Mode Helical Antenna and Scatterer," In IEEE Antennas and Prop. Society International Symp. Dig. , Vol. 3, pp. 1731-1734, Chicago, 1992.



- 26- Hamdy A. Sharshar, S.H.Zainud-Deen and K.H.Awadalla, " Radiation and Scattering of two Coupled Normal Mode Helixes," URSI Electromagnetic Theory Symposium, Sydney 17-20 August 1992, Australia, pp.511-516.
- 27- A.H.Bahnacy, S.H.Zainud-Deen, K.H.Awadalla, M.N.I.Fahmy, and M.C.Hately, "An improved solution for T-antennas", 1992 IEEE APS, URSI, NEMP Joint Symposia, Chicago, USA, July 1992, pp. 1735-1738.
- 28- A.H.Bahnacy, S.H.Zainud-Deen, M.N.I.Fahmy, and K.H.Awadalla, "Solution of the T-antenna using the induced EMF method", Tenth National Radio Science Conference, NRSC'93, Feb. 1993, B10, pp 1-11.
- 29- S.H.Zainud-Deen, Hamdy A. Sharshar, and K.H.Awadalla," Synthesis of Circular Polarized Normal Mode Helical Antenna," Tenth National Radio Science Conference, NRSC'93, B9, pp. 1-9, Cairo, Egypt, Feb. 1993.
- 30- S.H.Zainud-Deen, Hamdy A. Sharshar, and K.H.Awadalla," Normal Mode Cross-Helix for Circular Polarization," Proceedings of The International Microwave Conference ( SBMO 1993 ), Sao Paulo, Brazil, Aug. 2-5, 1993, pp. 511-516.
- 31- S.H.Zainud-Deen, K.H.Awadalla & H.A.Sharshar, "Analysis of normal mode helical antenna on finite ground plane", 1995 IEEE/AP-S International Symposium and USNC/URSI Radio Science Meeting at Newport Beach, California, USA, June 1995, pp.1879-1882.
- 32- A.I.Bahnacy, S.H.Zainud-Deen, M.N.I.Fahmy & K.H.Awadalla, "Closed form solution for the asymmetrical T-antenna", 1995 IEEE/AP-S International Symposium and USNC/URSI Radio Science Meeting at Newport Beach, California, USA, June 1995, pp.1891-1894.
- 33- A.I. Bahnacy, H.A. Sharsher, K.H. Awadalla, and S.H. Zainud-Deen, " Radiation Characteristics of Open Rectangular Loop Antenna," 1996 International Symposium on Antennas and Propagation, ISAP'96, Chiba, Japan.
- 34- M.N.I. Fahmy, A.I. Bahnacy, S.H. Zainud-Deen, and K.H. Awadalla, " An Experimental Investigation of the Proposed Crossed Field Antenna," 1997 International Conference on Antennas, Radio-communication Systems and Means (ISARSM'97), Russia, May 1997.

- 35- S.H. Zainud-Deen, K.H. Awadalla, A.I. Bahnacy, and H.A. Sharsher, "Performance Analysis of Zigzag Antenna for Portable Radio Equipment," 1997 IEEE/AP-S International Symposium and USNC/URSI Radio Science Meeting, Montreal, Canada, July 1997, pp.442-445.
- 36- S. H. Zainud-Deen, K. H. Awadalla, S. A. Khamis & N. A. El-Shalaby, "Radiation and scattering from Koch Fractal Antennas," 21<sup>st</sup> National Radio Science Conference (NRSC 2004) (NTI) , Cairo, Egypt, Marsh 16-18, 2004.
- 37- S. H. Zainud-Deen, D. G. Mohrram, K. H. Awadalla & H. A. Sharshar, "Circularly polarized switched parasitic quadrifilar helical arrays," 22nd National Radio Science Conference (NRSC 2005), Cairo, Egypt, Marsh 15-17, 2005.
- 38- S. H. Zainud-Deen, Sahar I. El-Doda, K. H. Awadalla & H. A. Sharshar, "A simple lumped-element circuit model for antennas using a genetic algorithm," 22nd National Radio Science Conference (NRSC 2005), Cairo, Egypt, Marsh 15-17, 2005.
- 39- S. H. Zainud-Deen, Elham H. El-shanawany, K. H. Awadalla & H. A. Sharshar, "Elimination of backscattering from scatterer using genetic algorithm," 22nd National Radio Science Conference (NRSC 2005), Cairo, Egypt, Marsh 15-17, 2005.
- 40- S. H. Zainud-Deen, Eman S. Mady, K. H. Awadalla & H. A. Sharshar, "Adaptive arrays of smart antennas using genetic algorithm," 22nd National Radio Science Conference (NRSC 2005), Cairo, Egypt, Marsh 15-17, 2005.
- 41- S. H. Zainud-Deen, M. E. Badr, K. H. Awadalla & H. A. Sharshar, "Microstrip antenna for detecting buried land mines," 23rd National Radio Science Conference (NRSC 2006), Menouf, Egypt, Marsh 14-16, 2006.
- 42- S. H. Zainud-Deen, Sahar I. El-Doda, K. H. Awadalla & H. A. Sharshar, "Model based parameter estimation of antenna input impedance and radiation pattern," 23rd National Radio Science Conference (NRSC 2006), Menouf, Egypt, Marsh 14-16, 2006.
- 43- S. H. Zainud-Deen, D. G. Moharram, K. H. Awadalla & H. A. Sharshar, "Switched parasitic array for diagnosis of array faults and direction finding," 23rd National Radio Science Conference (NRSC 2006), Menouf, Egypt, Marsh 14-16, 2006.

- 44- S.H. Zainud-Deen, Dalia G. Moharram, K.H. Awadalla, and H. A. Sharshar, "Adaptive Multifilar-Curl Antennas for Satellite Systems," ANTEM 2006, Symposium on Antenna Technology and Applied Electromagnetic, Montreal, QC, Canada, 2006.
- 45- S.H. Zainud-Deen, Eman S. Mady, K.H. Awadalla, and H. A. Sharshar, "Controlled Radiation Pattern of Circular Antenna Array," IEEE APS/URSI/AMEREM 2006 Symposium, Albuquerque, New Mexico, USA, July 2006.
- 46- H. M. Abdel Salam, A. A. Shaalan, S. H. Zainud-Deen & K. H. Awadalla, "Compact wideband overlapped patches microstrip antennas," 23rd National Radio Science Conference (NRSC 2006), Menouf, Egypt, Marsh 14-16, 2006.
- 47- S. H. Zainud-Deen, M. E. Badr, K. H. Awadalla, and H. A. Sharshar, "Microstrip antenna with shorting pins as a sensor for land mines detection," The 23rd Annual Review of Progress in Applied Computational Electromagnetics, March 19-23, 2007, Verona, Italy, pp.1230-1235
- 48- S. H. Zainud-Deen, H. A. Malhat, K. H. Awadalla, and H. A. Sharshar, "Wavelet packet transform with iterative technique based on method of moments," The 23rd Annual Review of Progress in Applied Computational Electromagnetics, March 19-23, 2007, Verona, Italy, pp.1025-1030
- 49- S. H. Zainud-Deen, H. A. Malhat, K. H. Awadalla, and H. A. Sharshar "Wavelet Packet Transform of the Method of Moments Matrix for Large-Scale Problems," 23rd Annual Review of Progress in Applied Computational Electromagnetics March 19-23, 2007 - Verona, Italy ©2007 ACES
- 50- S. H. Zainud-Deen, H. A. Malhat, K. H. Awadalla, and E. S. El-Hadad "Direction of Arrival and State of Polarization Estimation Using Radial Basis Function Neural Network (Rbfnn)," *Progress In Electromagnetics Research B*, Vol. 2, 137-150, 2008.
- 51- S. H. Zainud-Deen, M. E. S. Badr, E. El-Deen, and K. H. Awadalla "Microstrip Antenna with Corrugated Ground Plane Surface as a Sensor for Landmines Detection," *Progress In Electromagnetics Research B*, Vol. 2, 259-278, 2008.

- 52- S. H. Zainud-Deen, W. M. Hassen, E. M. Ali, and K. H. Awadalla, "Breast Cancer Detection Using a Hybrid Finite Difference Frequency Domain and Particle Swarm Optimization Techniques," *Progress In Electromagnetics Research B*, Vol. 3, 35-46, 2008.
- 53- S. H. Zainud-Deen, M. E. S. Badr, E. El-Deen, K. H. Awadalla, and H. A. Sharshar, "Microstrip Antenna with Defected Ground Plane Structure as a Sensor for Landmines Detection," *Progress In Electromagnetics Research B*, Vol. 4, 27-39, 2008.
- 54- S.H. Zainud-Deen, S.I. El-Doda, K.H. Awadalla, and H.A. Sharshar, "The Relation between Lumped-Element Circuit Models For Cylindrical Dielectric Resonator and Antenna Parameters Using MBPE.," *Progress In Electromagnetics Research M*, PIER M, Vol.1, pp.79-93, 2008.
- 55- H. I. Ashiba, K. H. Awadallah, S. M. El-Halfawy and F. E. Abd El-Samie, "HOMOMORPHIC ENHANCEMENT OF INFRARED IMAGES USING THE ADDITIVE WAVELET TRANSFORM," *Progress In Electromagnetics Research C*, PIER C, Vol. 1, pp. 123-130, 2008
- 56- S. H. Zainud-Deen, H. A. Malhat, and K. H. Awadalla, "A single-feed cylindrical superquadric dielectric resonator antenna for circular polarization," *Progress In Electromagnetics Research*, PIER 85, 409-424, 2008.
- 57- A. Ebian, M. Shokair, and K. H. Awadallah, "Performance evaluation of wimax system using convolutional product code (cpc)," *Progress In Electromagnetics Research C*, Vol. 5, 125-133, 2008.
- 58- N. A. Odhah, K. H. Awadalla, M. I. Dessouky and F. E. Abd El-Samie, "Regularized optimum beamforming for downlink CDMA systems," *Progress in Electromagnetics Research*, PIER-C 5, pp. 195-207, 2008.
- 59- N. A. Odhah, K. H. Awadalla, M. I. Dessouky and F. E. Abd El-Samie, "Efficient implementation of downlink CDMA beamforming," *WASET International Conference on Communication Technology, ICCT'2009*, Penang, Malaysia, Vol. 38, pp. 1134-1141, Feb. 2009.
- 60- N. A. Odhah, K. H. Awadalla, M. I. Dessouky and F. E. Abd El-Samie, "Low complexity MIMO pre-equalization for cyclic prefix CDMA system," *WASET International Conference on Communication Technology, ICCT'2009*, Penang, Malaysia, Vol. 38, pp. 1124-1149, Feb. 2009.

- 61- N. A. Odhah, K. H. Awadalla, M. I. Dessouky and F. E. Abd El-Samie, "Efficient implementation of downlink CDMA beamforming with regularized zero forcing equalizer," URSI National Radio Science Conference, NRSC 2009, Future University, New-Cairo, Egypt, March 2009, pp. (C01-1)-(C01-8).
- 62- N. A. Odhah, K. H. Awadalla, M. I. Dessouky and F. E. Abd El-Samie, "Frequency domain pre-equalization for MIMO broadband CDMA communication systems," 26th National Radio Science Conference, NRSC 2009, Future University, New-Cairo, Egypt, March 2009, pp. (C02-1)-(C02-8).
- 63- S. H. Zainudeen, W. M. Hassan, and K. H. Awadalla, "Crack detection using a hybrid finite difference frequency domain and particle swarm optimization techniques," 26th National Radio Science Conference, NRSC 2009, Future University, New-Cairo, Egypt, March 2009, pp. (B04-1)-(B04-8).
- 64- S. H. Zainudeen, M. E. Badr, E. M. Ali, K. H. Awadalla, and H. A. Sharshar, "Effect of soil physical properties on land mine detection using microstrip antenna as a sensor," 26th National Radio Science Conference, NRSC 2009, Future University, New-Cairo, Egypt, March 2009, pp. (B06-1)-(B06-7).