

CURRICULUM VITAE (CV)

Name: Prof.EL-Sayed Mostafa Saad

Professionality: Professor of Electronic circuits, Faculty of Engineering, Helwan University.

Academic Record:

B.Sc. degree in Electrical Engineering (Communication section), Cairo University, 1967.
Pre-requisite courses for M.Sc. degree, Electronic & Communication Engineering Department, Jan.1974. Cairo University.
Dip.-Ing. in Electrical Engineering, Stuttgart University,1977.
Dr.-Ing. in Electrical Engineering, Stuttgart University, 1981.

Employment:

Engineer (Assistant), Higher Institute of Electronics, till 1975.
Assistant from Jan.1976- till Nov.1981, Faculty of Engineering & Technology, Helwan University.
Assistant Professor, Faculty of Engineering & Technology, Helwan University, (Nov.1981- till Dec.1985).
Associate Professor, Faculty of Engineering & Technology, Helwan University, (Dec.1985- till Jan.1990).
Professor, Faculty of Engineering & Technology Helwan University, since January 1990.

Academic Activities and Researches:

- 1 Supervisor of M.Sc. & Ph.D. Theses.
- 2 M.Sc. & Ph.D. Theses, Committee.
- 3 Member of the translation group of IBM vocabulary for data processing, Telecom. and Office Systems, 1984.
- 4 Supervision on researches, training, projects in the NTI since 1985.
- 5 Member of the translation group of electronic devices and circuits - book, 1994.
- 6 International scientific member of the ECCTD, 1983.
- 7 Member of the national Radio Science Committee.
- 8 Author and/or co-author of 118 papers.
- 9 Reviewing National and International Papers.
- 10 Member of the scientific consultant committee in the Egyptian Engineering Syndicate for Electrical Engineers, till May 1995..
- 11 Member of the Egyptian Engineering Syndicate .
- 12 Member of the European Circuit Society (ECS) .
- 13 Member of the Society of Electrical Engineering (SEE).
- 14 Consultant for the Engineering Education Development Project (EEDP) from 1993 to 1996.
- 15 Vice Dean of the faculty of Engineering for Education & Students affairs from March 1996 till March 2002.
- 16 Inventor of Saad,s single amplifier SC structure.
- 17 Reviewing of 12 books, ministry of education.
- 18 Who,s Who 18th edition, 2001, Who,s Who in science and Eng.,1st edition of the 21st century, Outstanding scholars of the 20th century.
- 19 Engineering Consultant for the Supreme Council of Universities ,since August 2002.

Courses Taught:

1. Under graduate Courses:

Theory of Telecommunication Systems,
Industrial Electronics,
Electronics,
Computers,
Microwave Eng.,
Wave propagation & Antennas,
Integrated Circuits, and
Computer Engineering Hardware.

2. Post graduate Courses:

M.Sc.Courses:

Electronic Measurements,
Electronic Circuits,
Digital Signal Processing,
Advanced Electronics, and
Digital Computers engineering.

Ph.D. Courses:

Logic Design and
Advanced computer engineering.

3. Advanced Courses in the NTI:

Basic Communication,
Digital Communication,
Digital Electronics,
Digital Signal Processing and
Automatic Testing.

List of publications:

Published Conference Papers

- 1- "On the Sensitivity and simplification of Switched Capacitor Filters derived from digital Structures " Proceeding of ECCTD, 80, Warsaw 2-5 Sept. 1980.
- 2- " Aus digitalen strukturen abgeleitete SC- Filter mit verringertem Aufwand " NTG Tagung , Wuerzburg , Germany . 8-10, Oct. 1980.
- 3- " Switched Capacitor Filter circuits, Design and Improvements " Proc. of SSCT, 82 , Prague, 12- 16 July, 1982.
- 4- " Design and Realization of a Generator for Pseudo Gaussian noise " Proceeding of the conference in statistics, computer science, operations research and Mathematics, 13-16 Dec. 1982, Cairo.
- 5- " Improved circuits for the realization of switched capacitor filters derived from digital Structures " Proc. of the congress for statistics, computer science, social and Demographic research, 31March - 10 April, 1984, Cairo.
- 6- " Switched capacitor based matched filter", Proc. of MIEL, 84, 7-9 May, 1984, Nis , Yugoslavia .
- 7- " A universal state - variable filter based on switched capacitor technology " IASTED, TELECON, 84 , 27 - 30 Aug., 1984.
- 8- " Alternative - Computer - Aided Design method of digital filters " IASTED , 3rd Intern. symp. Applied Informatics , Grindelwald , Switzerland , Feb. 19-22 , 1985 .
- 9- " Electronic sector scanning in medical ultrasonic imaging systems IASTED, 4th Inter. symp. MIC, 85, Grindelwald, Switzerland, Feb. 19-22 , 1985 .
- 10- " Optimum filter to detect random signals embedded in a background of additive noise " , Proc. of URSI, MTC, Cairo, Feb. 23-25 , 1985.
- 11- " Alternative direct design method of digital filters and error analysis", proc. of ECCTD , 85 , 2-6 Sept. 1985 . Prague .
- 12- " Circuits for pulse code Modulation concentrators which can be integrated " Proc . of MIEL , 85, May 8-10. 1985 . Ljubiana , Yugoslavia ,
- 13- " Hardware Realization of some built in Functions " Proc. of MIEL, 86 , May 14-16,1986 . Beograd, Yugoslavia.
- 14- " On the analysis and reduction of Timing Jitter in Digital Filtering " Proc. of URSI, MTC , Cairo , Nov. 9-11 , 1986 .

- 15- "Finite Impulse Response filters for detection of binary signals" Proc. of MIEL, 87 , May 14-16 , 1987 , Banjaluka , Yugoslavia .
- 16- "Fault diagnosis of switched capacitor circuits" Proc. of ECCTD, 87 , Paris , Sept. 1-4 , 1987.
- 17- "Direct design Method of High order Digital Filters" Proc. of URSI, Feb. 19-21, 1989, MTC, Cairo.
- 18- "On the synchronization Technique of PCM Transmission systems" URSI , Feb. 19-21 , 1989, MTC, Cairo.
- 19- "Realization of Fast Digital Filters with Microprocessors using shift Arithmetic Technique" URSI , Feb. 19- 21 , 1989, MTC , Cairo.
- 20- "Tracking Method for Interference Reduction in Communication systems" URSI , Feb. 19- 21 , 1989 , MTC , Cairo .
- 21- "A decomposition approach for fault diagnosis of switched capacitor circuits" Proc. of ISCAS , 89 Portland , Oregon , USA , May 9-11, 1989.
- 22- "Direct design method of high order digital filters" Proc. of ECCTD - 89 , Sep. 5-8 , 1989 Brighton , U.K.
- 23- "A parameter identification approach to fault diagnosis of switched capacitor filters" Proc. of ECCTD - 89.
- 24- "Maximizing the manufacturing yield in the realization of digital filter circuits" NRSC, 90 , Feb . 20 -22 , 1990 , MTC , Cairo .
- 25- "Implementation of fast digital filters with microprocessors" Proc. Int. conf. st, comp. sci, March, 1990 , Cairo .
- 26- "A microprocessor- based programmable digital filter" NRSC, Feb, 20 - 22 , 1990, MTC, Cairo
- 27- "Improving the Realization accuracy of digital filter circuits" MTC, Cairo, URSI , Feb. 19-21 , 1991.
- 28- "Improving the realization Accuracy of digital filter circuits" ECCTD, 91 , Copenhagen - Denmark .
- 29- "Neural Network Introduction and Analysis" URSI , Feb. 18-20, 1992 , Cairo .
- 30- "Neural Network for An n -bit A/ D converter" CCECE , 92 , Toronto , 13 - 16 Sep. 1992 .
- 31- "New Structures for MDSP Implementation" NRSC -March 21 -23 , 1995 Alex. Egypt.

- 32- “ On the Analysis and Design of high speed Digital Filter suitable for MDSP implementation “ ECCTD 95 , Istanbul , Turkey , 27- 31, Aug. 1995.
- 33- “A proposed ATE for digital systems “ proceeding of NRSC, 96, MTC, Cairo , 19-21 March , 1996 .
- 34- “ An Automated test system for Analog circuits “ Proceeding of the NRSC, Cairo, 1997,
- 35- “Implementing high order digital filters in a cascade form suitable for Real time Applications” Proceeding of the NRSC, Cairo, 1997.
- 36- ” Using Feed-forward multi-layer Neural Network and vector Quantization as an Image data compression technique “ Proceeding of the NRSC, Cairo, 1997.
- 37- “Using Feed-forward multi-layer Neural Network and vector Quantization as an Image data compression technique “ Proceeding of the ISCC, 98, Athens, June, 1998, Page 554 - 558 .
- 38- “Acquired data Application on an Image data compression technique ” Proceeding of progress in Electromagnetic Research Symposium (PIERS), 13-17 July 1998, Nantes, France, pages 63.
- 39- “Reference – Free Adaptive Interference Cancellation Using Cross-coupled Scheme” Proceeding of NRSC, Feb.2000, Minufiya, Univ., EGYPT.
- 40- “ Firmware Implementation of the Discrete Wavelet Transform” Proceeding of AEIC , Cairo 1-4, Sep. 2000
- 41- “Modified Back Propagation Algorithm for learning Artificial Neural Networks “ Proc. of NRSC, March 27- 29, 2001, El-Mansoura Univ. , Egypt .
- 42- “Modified Wiener Filter for multi-frame restoration of blurred and noisy Images “Proc. of NRSC, March 27- 29 , 2001 El-Mansoura Univ. , Egypt .
- 43- “ Computer Aided Algorithm to design digital Filters “ Proc. of CMIT, Cairo, Sept. 24-29-2001
- 44- “A multi-feature speech/ music discrimination system” Proc. Of NRSC, March, 19-21, 2002.Alex. Univ., Egypt, and Proc. of CCECE02, 2002, Winnipeg, canada.
- 45- “A new wavelet- based Image Coding using embedded Vector quantizer “Proc. of CCECE02, 2002, Winnipeg, Canada.
- 46- “Switched Capacitor Circuits and their applications – an Overview “Proc. of NRSC, March,19 – 21,2002, Alex. Univ., Egypt.
- 47- “An improved Arabic morphology analyzer (IAMA) “, Proc. of the 27th International conference for statistics, computer science and applications, Cairo, 2002.

- 48- Neural Networks, Theory, Structures and Applications , Invited, Proc. of the first Scientific Symposium on recent technologies in Electronics & Communications, Air defense College, Alexandria, 3-5 February, 2003.
- 49- “The use of continuous-wave ultrasound in tomography”oc. Of the NRSC.2003, March 18-20 2003,The atomic energy authority, cairo 2003.
- 50- “ A new Image compression using embedded vector quantizer”_Proc. of ECCTD,03, 1-4 Sept.2003, Karkau , Poland.
- 51- “An Arabic to english machine translation system” Proc. of the 4th conference on Language Engineering, CLE, Oct.2003, Cairo, Egypt.
- 52- “A new compact control unit for CNC using SoCs Technology” Proc. of, ICM2003,9-11,Sept. 2003, Cairo, Egypt.
- 53- “Reconfigurable network based on Ant algorithm” Proc. of the NRSC04,,16-18March 2004,NTI, Cairo,EGYPT.
- 54- “An Optimum design of continuous wave ultrasonic tomographic technique” Proc. of the NRSC04,,16-18 March 2004,NTI, Cairo, EGYPT.
- 55- “Pipeline classifier face recognition system based on reject option with multiple thresholds” Proc. of the first URSI- Egypt workshop on Signal Processing”, AASTMT ,Cairo, May ,2004.
- 56- “Ant Colony Algorithm, Theory and Applications” Proc. of the first URSI-Egypt workshop on Signal Processing, AASTMT, Cairo,May,2004.
- 57- “A general purpose Microcontrol unit suitable for digital system control ”Proc. of the first URSI-_Egypt workshop on Signal Processing , AASTMT, Cairo, May,2004.
- 58- “Nuclear Emergency Management System Case Study: Egypt,s second Research Reactor ” Proc. of the ESNSA, Conference, Cairo-2004
- 59- “ An efficient watermark Embedding Technique” Proc. of the IWSSIP04,Sept. 13-15,Poznan,POLAND and Proc. of the NRSC 05 ,March 15-17 ,2005,cairo Egypt .
- 60- “Detection of Faces in a color natural scene using skin color classification and Template Matching”, Proc. of the NRSC05, March 15-17 ,2005, Cairo, Egypt.
- 61- “Optimization of reconfiguration transitions for self-reconfigurable FSM using decomposition”, Proc. of the NRSC05, March 15-17, 2005, Cairo, Egypt., and JES, Fac. Of Eng. Assiut Univ.,vol.33.May 2005.
- 62- “Special design of Continuous- wave ultrasonic tomographic system” Proc. of SPIE, Feb, 2005, USA.
- 63- “Digital Signal Processing Theory and Applications”, Proc. of the Second URSI-Egypt Workshop On Signal Processing, Jan. 17th 2006, Cairo.
- 64- “Generation of Task Graph “Accepted for presentation at the ACST 2006, Mexico06, and the Proc. of the NRSC06, EGYPT.

- 65- "Modified Ant Algorithm "Accepted for presentation at the ACST2006, Mexico06 and the Proc. of the NRSC06, EGYPT.
- 66- "Modified Ant Colony Algorithm Based Reconfigurable Parallel Processing System "Accepted for presentation at the ACST2006, Mexico06, and the Proc. of the NRSC06, Egypt.
- 67- "All-Optical Digital Full Adder, Decoder and Multiplexer by Using Hardlimiters" Proc. of the ICSES Conference ,September 17-20,2006,Lodz, Poland.
- 68- "Minimax Face Recognition Technique Based on Vector Quantization in the Transform Domain" Proceeding of The IWSSIP04, September 13-15, 2004, Poznan POLAND.
- 69- "All optical Arithmetic unit based on hardlimiters" Proc. Of the 6th Conf. ,Greece , 2007.
- 70- "Adaptive and Energy efficient Clustering Architecture Sensor Networks "Proc. Of the 2nd IEEE international Workshop on soft Computing Applications, Guyla (Hungary) ,Oradea (Romania), Aug. 2007 , Hungary .
- 71- Mostafa, A.M., Ismail, M.A., El-Bolok, H., Saad, E.M.: Toward a Formalization of UML2.0 Metamodel using Z Specifications. In: Eighth ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing, SNPD 2007, July 30-August 1 2007, vol. 1, pp. 694–701 (2007).
- 72- " Distributed and Adaptive Clustering Architecture for Dynamic Sensor Networks" Innovatie Production Machines and Systems IPROMS 2008 , England
- 73- "A Distributed Algorithm for Robot Formations using local sensing and limited Communications" IPROMS 2008, England.
- 74- "Person Identification using Palmprint" Proc. Of the NRSC08, Tanta, Egypt, March, 2008
- 75- "Robot Formations using local sensing and limited range vision " , Proc. Of the NRSC08, Tanta, Egypt , March. 2008.
- 76- "Evaluation of QoS in UMTS backbone Network by using differential services" Proc. Of the NRSC08, Tanta, Egypt, March, 2008.
- 77- "Multi target tracking using a compact Q-learning", Proc. Of ICCES, 2008.
- 78- "A data gathering algorithm for a mobile sink in large scale sensor networks", Proc. of the 4th ICWMC, Athens, 2008, and Proc. Of the third Int. Conference on Modeling , Simulation and Applied Optimization Sharjah ,U.A.E January ,2009.
- 79- "Reconfigurable hardware implementation of a fast and efficient motion detection algorithm", Proc. of the 10 th WSEAS MACTEE08 Conference, Bulgaria, May 2008.
- 80- "FPGA- based implementation of a low cost and area real-time motion detection", Proc. of the 15th IEEE MIXDES, 08, Poland, June 2008.

- 81- "A Distributed Controller for Roaming Robot Formations using Local Sensing and Limited Range Communications", The 7th WSEAS International Conference on COMPUTATIONAL INTELLIGENCE, MAN-MACHINE SYSTEMS and CYBERNETICS (CIMMACS '08), December 29-31, 2008.
- 82- "Multi-Target Tracking using a Compact Q-Learning with a Teacher", Proc. Of the NRSC09, FUE university, Egypt, March. 2009.
- 83- "FPGA-Based Software Profiler for Hardware / Software Co-design", Proc. Of the NRSC09, FUE university, Egypt, March. 2009.
- 84- "FPGA – Based Object- Extraction based on Multimodal Σ - Δ Background Estimation" 2nd IEEE International Conference on Computer ,Control ,and Communication , Karatchi,Pakistan,Febr.2009.
- 85- "Development of decoupling scheme for higher order MIMO process passed on hybrid genetic and Nelder-Mead algorithm ", Proc. Of the 11th WEAS International Conference on Automatic Control, Modeling and Simulation, Istanbul May 2009.

Published Journal Papers

- 86- "Analysis of switched capacitor filters with non-ideal operational amplifiers "Modeling, simulation & control, A., AMSE press, Vol. 16, No3, 1988.
- 87- "Analysis of Errors and possible cancellation of their effects in Digital filters "Modeling, simulation & control, A., AMSE press, Vol. 16, No 4, 1988.
- 88- "An Approach to the Manufacturing yield in Digital filter circuits "Journal of Microelectronics,Electronic components and Material MIDEM 20 (1990) Jan., Ljubljana , Yugoslavia.
- 89- "Minimization of the effect of coefficient errors in digital filters "Engineering research bulletin, Univ. of Helwan , Volume 1 , January 1990 .
- 90- "On the Analysis and Design of high -speed digital filter suitable for MDSP Implementation "Signal Processing Journal 54 (1996) 129-136 .
- 91- "On the Techniques of Electronic Circuit Production"Invited Paper (Review), Society of Egyptian Engineers (S.E.E) , Electrical Engineers. June 1999, Cairo.
- 92- "Automatic testing Equipment for hybrid boards using pseudo Random testing Approach "AUEJ, vol. 4, No 3, July 2001, PP. 204 – 225.
- 93- "Selection and MRC Diversity for a DS/ CDMA Mobile Radio System through Nakagami Fading Channel "Wireless Personal Communication, 16: 2001.
- 94- " Simulation of Fault Recognition and isolation for automatic testing of hybrid boards Using pseudo Random Approach " AUEJ, vol. H, No 3, July 2001, PP.206-213

- 95- "Algorithms and Implementation for the Fast Dynamic Reconfiguration of finite state machines" Journal of Engineering Sciences, fac. of Eng., Ain Shams Univ., vol.40, March 2005.
- 96- "An Architecture for fast reconfiguration of (self) reconfigurable finite state machine" JES , Fac. of Eng., Assiut Univ. vol.33,May 2005.
- 97- " A Modified Wiener Filter for Multi-Frame Restoration of Blurred and Noisy Images" International Journal of Information Acquisition,Vol. 2, No.2 (2005) 123-135
- 98- "High –Speed , Area efficient FPGA Based Floating Point Arithmetic Modules" JES Fac. of Eng., Univ. of Assiut,Vol.34,No. 4 ,July 2006, and Proc. of the ICSES Conference,Sept. 06 ,Poland.
- 99- "All optical synchronous binary counter based on optical flip flop Memory" WSEAS Trans. On Comm. Issue 4, Vol.6, April, 2007.
- 100-"All optical Arithmetic –logic Unit "WSEAS Trans. On Computer, Issue 7, Vol. 6, July, 2007.
- 101-"Parallel- shift register and binary multiplier using optical hardware components" The intern. SPIE Optical Engineering Journal Vol. 47(3), March 2008.
- 102-"Frontal- View Face detection in the presence of skin-tone regions using a new symmetry approach "Journal of Computer Science and Technology, vol.6, no.2, October, 2006.
- 103-"A new symmetry Approach for frontal-view Face detection" International Journal of Computing, vol.6, no.1, 2007.
- 104-"Fusion of Zernike moments and Fourier - Mellin Transform for invariant Image Resolution " Optical Eng. Journal ,479(1),017002,January 2008.
- 105-"Scheduling Hard Real –Time Tasks with Precedence Constraints on Multiprocessor Systems" JES, of Eng., Sciences, Assiut Univ., Vol.35, No.6, Nov.2007.
- 106- "Adaptive energy-aware gathering strategy for wireless sensor networks", The International Journal of Distributed Sensor Networks, 5:834-849,2009.
- 107- "Adaptive and energy efficient clustering architecture for dynamic sensor networks ", International Journal of Computers and its Applications, Vol. 31, No. 4, 2008.
- 108- "FPGA-Based real time video object segmentation with optimization scheme", International Journal of Circuits, Systems and Signal Processing, Issue 2, Vol. 2, Sept. 2008.
- 109- "Efficient Distributed Controller for Robot Formations using Local Sensing and limited Range Communications", International Journal of Computers", Vol. 2, Issue 3, pp 330-339, 2008.
- 110- "Multi-Target Tracking using Human Teachable Robots", International Journal of Computers, Vol. 2, Issue 4, pp 479-488, 2008.

- 111- "Evolving Comprehensible Neural Network Trees Using Genetic Algorithms" Proc. Of the International Conference PRIA-8-2007, Yoshkar-Ola, the Russian Federation, Oct., 2007 and Pattern Recognition and Image Analysis, Journal, Vol.19 No.1.pp.1-6 Springer Link, 2009.
- 112- "FPGA – Based Real-Time Software Profiler for Embedded Systems" International Journal of Computers, Systems, and Signals, Vol.9, No.2, 2008.
- 113- " Real – time FPGA- based Privacy and Authenticated Surveillance System" Journal of Computer and Electrical Engineering, Vol.1, No.4, October, 2009.
- 114- "A reliable FPGA-based real time optical-flow estimation", International Journal Of Electrical, Computer, and Systems Engineering 4:4 2010 and Proc. Of the NRSC 09, FUE university, Egypt, March. 2009.
- 115- "Using hybrid genetic and Nelder-Mead algorithm for decoupling of MIMO systems with application on two coupled distillation columns process", International Journal of Mathematics and Computers in Simulation, Issue 3, Vol. 3, 2009.
- 116- “ Software Profiler for FPGA-Based Hardware/Software Co-Design” Journal of Eng. and applied science ,Vol.56 ,No.1 , Feb.2009, Faculty of Eng., Cairo University.
- 117- “ FPGA- Based Σ - Δ Estimation with Optimization Schemes for Real- Time Surveillance Systems “Accepted , “2010, IST Transactions on Computer Vision Systems- Theory and Applications
- 118- “ Tuning PID Controllers using Hybrid Genetic and Nelder-Mead Algorithm” JES Journal of Eng. Sciences, Vol.38- No.4, July 2010, Assiut University.