



RESUME of
Dr. AZIZA I. HUSSEIN
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Areas of Interest	Digital/Analog circuit design, VLSI, hardware/software co-design, RF circuit design, high-speed analog-to-digital converters design, & wireless communication.
Education	Ph.D. in Electrical & Computer Engineering, Kansas State University, Manhattan, KS, USA. GPA: 4.0/4.0 2001
	M.S. in electrical engineering, Assiut University, Assiut, Egypt. 1989
	B.S. in electrical engineering, Assiut University, Assiut, Egypt. 1983
Work Experience	Chair and a professor, Electrical and Computer Engineering department, Effat University, Jeddah, KSA. 2017-present
	Chair and Associate professor, Electrical and Computer Engineering department, Effat University, Jeddah, KSA. 2016-2017
	Chair and Associate professor, Computer and Systems Engineering department, Minia University, Minia, Egypt 2011-2015
	Associate professor, Computer and Systems Engineering department, Minia University, Minia, Egypt. 2010-2011
	Chair and Associate professor, Electrical and Computer Engineering department, Effat University, Jeddah, KSA. 2007-2010
	Chair and Assistant professor, Electrical and Computer Engineering department, Effat College, Jeddah, KSA. 2006-2007
	Assistant Professor, Effat College, Jeddah, KSA and supervisor of the establishment of the first engineering program for women in Saudi Arabia at the college in cooperation with Duke University (USA). 2004-2006
	Assistant Professor actively involved in the establishment of the Computer and Systems Engineering Department, College of Engineering, Minia University, Egypt. 2003-2004
	Assistant Professor, Department of Electrical Engineering, College of Engineering, Minia University, Egypt. 2001-2003
	Research Assistant, Department of Electrical and Computer Engineering, Kansas State University, Manhattan, KS, USA. 1995-2001
	Associate lecturer, Department of Electrical Engineering, College of 1984-1991

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Engineering, Minia University, Minia, Egypt.

Awards	A scholarship Award from the Egyptian Government to study for PhD at Kansas State University, USA.	1995-2001
	Research Assistantship from the National Research Foundation project at Kansas State University, USA.	1998-2001
	Semiconductor Research Corporation award for the contribution in its national competition in IC design, USA.	2001
	International Coordinating Council Scholarship as one of the best four international students at Kansas State University, USA.	1997
	Teaching Assistantship at Department of Electrical Engineering, College of Engineering, Minia University, Minia, Egypt.	1984-1989

Computer Skills

Operating Systems: Unix, Linux, and Windows.

Languages: VHDL, C, Assembly and FORTRAN.

Packages: Mentor Graphics, Synopsys, Cadence, Altera, L-Edit, Xilinx, MAGIC, ADS, MATLAB, SPICE, ORCAD, Multisim, SILVACO including SUPREM and ATLAS (S-PISCES, BLAZE, LUMINOUS, and LASER), VISIO, and Microsoft Office (Word, Power point, Access, and Excel).

Laboratory Skills

Design and test of radio frequency (RF) ICs.

Fabrication and characterization of integrated circuits (ICs) including oxidation, photolithography, etching, diffusion, and aluminium deposition.

Printed circuit board design.

Electronic measurements.

Courses Taken Towards the Ph.D. at KSU

- Advanced CMOS Integrated Circuit Design (EECE 890) (Grade A).
- TOP/VHDL (EECE 849) (Grade A).
- Digital Radio Hardware Design (EECE 890) (Grade A).
- Integrated Circuit Engineering (EECE 625) (Grade A).
- Statistic Methods (STAT 703) (Grade A).
- Optoelectronics (EECE 694) (Grade A).
- Advanced Systems Theory (EECE 830) (Grade A).
- Advanced Power Electronics (EECE 824) (Grade A).
- Computer Engineering Methods I (EECE 840) (Grade A).

Other Courses Taken

- Digital Logic Design (University of Ottawa, Canada) (Grade A+).
- Stochastic Processes (University of Ottawa, Canada) (Grade B+).
- C Language Laboratory.

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Teaching Experience

At the Electrical and Computer Engineering Department, Effat University, Jeddah, Saudi Arabia (Jan. 2016- Present):

- CMOS VLSI Design Methodologies
- Introduction to ECE
- Introduction to Electric circuits
- Linear System Theory
- Special topic in ECE (VLSI Design)
- Introduction to Electronics (Integrated Circuits)
- Summer training I (supervisor)
- Summer training II (supervisor)
- Capstone I (supervisor)
- Capstone II (supervisor)

At the Computer and Systems Department, Minia University, Minia, Egypt (2010-15):

- Digital Circuits
- Digital Integrated Circuit Design
- Digital Control
- Computer Architecture
- Computer Organization
- Computer based Circuit Analysis
- Senior Design Projects

At the Electrical and Computer Engineering Department, Effat University, Jeddah, Saudi Arabia (2004-2010):

- Computer Architecture.
- Developed and taught “Introduction to Switching Theory and Logic Design” course.
- Developed and taught “Introduction to Computer Concepts”.
- Developed and taught “Introduction to Electronics: Devices” course.
- Developed and taught “Introduction to Electronics: Circuits” course.
- Developed and taught “Linear System Theory” course.
- Developed and taught “Introduction to ECE”, a project based course.
- Developed and taught “Introduction to Electric Circuits” course.
- Developed and taught “Communications Engineering” course.

At the Electrical Engineering Department, Minia University, Minia, Egypt (2001-2003):

- Digital Circuit Design

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- Very Large Scale Integration (VLSI)
- VHSIC hardware description language (VHDL)
- Electronic Circuit Design courses I and II
- Senior Design Projects

Leadership Experience

At the Electrical and Computer Engineering Department, Effat University, Jeddah, Saudi Arabia (Jan. 2016- Present):

As a Chair of the department actively involved in:

1. Program international (ABET) and National Accreditation:
 - a) International Accreditation (ABET)
 - Assessments and evaluations of the students' learning outcomes.
 - Collecting evidences
 - Writing the ECE self study report.
 - Preparation for the ABET team Site Visit to the department which took place on December 4-6, 2016
 - Development of required manuals: ECE department policy and procedure manual, Student advising manual, ECE Assessment manual
 - Handling the response to ABET Draft Statement
 - b) National Accreditation(NCAAA)
 - Preparation and revision of required documents such as Annual program report, Course reports, Course syllabi
2. Curriculum update: the updated program with the modifications according to King Fahd university comments is sent to the ministry for approval .
3. Master of energy program development
4. Strategic plan development for 2017-2022 which required:
 - Revising department vision and mission
 - SWOT analysis
 - Goals and objectives development
 - Action plan
5. Students orientations
6. Student advising
7. Financial Management of the department
8. Facilities update
9. Faculty Recruitment
10. Teaching
11. Research.
12. Supervise master and PhD students

At the Computer and Systems Department, Minia University, Minia, Egypt (2010-15), head of the department:

- In charge of the requirements of the Egyptian National Authority for quality assurance and accreditation of education (NAQAEE) in the department (2011-jan. 2016). The college get the accreditation in (2014) during my role as a department chair.
- In charge of program development. The updated curriculum sent for the ministry approval in Sept. 2015.
- In charge of laboratories development.
- Teaching graduate and undergraduate courses.
- Conducting Research

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- Supervising graduate students.

At the Electrical and Computer Engineering Department, Effat University, Jeddah, Saudi Arabia (2004-2010):

- Supervised the establishment of the First Engineering Program for woman in Saudi Arabia at Effat University in collaboration with Pratt School of Engineering of Duke University, USA.
- Developed the curriculum of Electrical and Computer Engineering Program at Effat University in collaboration with Pratt School of Engineering of Duke University, USA.
- Supervised the establishment of the State of the Art ECE Laboratories at Effat University in collaboration with Pratt School of Engineering of Duke University, USA:
 - Basic electronics laboratory,
 - Telecommunication Laboratory,
 - Control Systems & Robotics Laboratory,
 - Microprocessor Laboratory,
 - Advanced Electronics Laboratory,
 - General Computing Laboratory,
 - Microwave laboratory.
- Supervised the established Basic Sciences Laboratories that supports the ECE Curriculum; Physics, Chemistry and Biology Laboratories at Effat university in collaboration with Pratt School of Engineering of Duke University, USA.
- Recruited staff for the ECE Department (Faculty members, Lab technicians and lab instructors).
- Promoted to the public the emerging ECE Program in Conferences and media and through many activities.
- Cooperated with Local and national industrial companies to build an effective Industrial Advisory Board, and to provide channels for summer internships to ECE students and recruitment after graduation.
- Directed and maintained the ECE Department budget and provided budget needs to the University President.
- General Academic Advisor for ECE students and assists them in their registration.
- Approved transfer credits, course waiver and substitutes.
- Determined course offerings and assigned course instructors.
- Supervised the “Women in Engineering Club”.
- In charge of the Quality Assurance Managed the National

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Accreditation process include any writing strategic plan.

Publications

- 1) Marwa Mashhour, Aziza I. Hussein “Sub-Nyquist Wideband Spectrum Sensing Based on Random Demodulation in Cognitive Radio" The 12th IEEE International Conference on Computer Engineering and Systems (ICCES 2017). Cairo, Egypt, December 19-21, 2017.
- 2) Lamya G. Ali, Aziza I. Hussein, Hanafy M. Ali “An Efficient Computation of Minimal Correction Subformulas for SAT-based ATPG of Digital Circuits" The 12th IEEE International Conference on Computer Engineering and Systems (ICCES 2017). Cairo, Egypt, December 19-21, 2017.
- 3) Ahmed M. Elshamy, Aziza I. Hussein, Hesham F. A. Hamed, M. A. Abdelghany, Hamdy M. Kelash, and Ahmad Q. Alhamad “Secure Implementation for Video Streams Based on Fully and Permutation Encryption Techniques”, 2017 International Conference on Computer and Applications (ICCA), September 06-07, 2017 Dubai, United Arab Emirates.
- 4) Elsayed M. Elshamy, Aziza I. Hussein, Hesham F. A. Hamed, M. A. Abdelghany, Hamdy M. Kelash, and Ahmad Q. Alhamad “Secure VoIP System Based on Biometric Voice Authentication and Nested Digital Cryptosystem using Chaotic Baker’s map and Arnold's Cat Map Encryption”, 2017 International Conference on Computer and Applications (ICCA), September 06-07, 2017 Dubai, United Arab Emirates.
- 5) Huda D. Jomma, **Aziza I. Hussein**, Alaa Hamdi “Hardware Accelerator for Feature Extraction Based on Circle Views Signature”, International Journal of Computer Applications (0975 – 8887), Volume 156 – No 9, December 2016
- 6) Lamya G Ali, **Aziza I Hussein**, Hanafy M Ali “Parallelization of Unit Propagation Algorithm for SAT-based ATPG of Digital Circuits”, 28th IEEE International conference on Microelectronics (ICM 2016), Cairo, Egypt, 17-20 December 2016.
- 7) Ahmed M. Sadek, **Aziza I. Hussein** “Flexible FPGA implementation of Min-Sum Decoding Algorithm for regular LDPC codes" The 11th IEEE International Conference on Computer Engineering and Systems (ICCES 2016). Cairo, Egypt, December 20-21, 2016.
- 8) Ahmed M. Elshamy, **Aziza I. Hussein**, Hesham F. A. Hamed, M. A. Abdelghany, Hamdy M. Kelash, and Ahmad Q. Alhamad “Security

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Optical Cryptosystem for Color Image Based on Double Random Phase Encryption in Discrete Fourier Domain and Color Indexed Map”, International Journal of Computer Science and Information IJCSIS August 2016 Volume 14 No. 8

- 9) M. Mourad Mabrook, Ghazal A. Fahmy, **Aziza I. Hussein**, M. A.abdelghany “Adaptive blind wideband spectrum sensing for cognitive radio based on Sub-Nyquist sampling Technique”, 28th IEEE International conference on Microelectronics(ICM 2016), Cairo, Egypt, 17-20 December 2016.
- 10) Jomma, **A. Hussein** "Circle Views Signature: A Novel Shape Representation for Shape Recognition and Retrieval", the Canadian Journal of Electrical and Computer Engineering, VOL. 39, NO. 4, FALL 2016
- 11) M. Mourad Mabrook,, Ghazal A. Fahmy, **Aziza I. Hussein** ,M. A. Abdelghany “Novel Adaptive non uniform Sub-Nyquist Sampling Technique for Cooperative Wide Band Spectrum”, The 12th International Computer Engineering Conference, Four Seasons hotel Giza, Egypt, 28-29 December 2016.
- 12) Mayar A. Mohammed, Aziza I. Hussein, Gerges M. Salama, Farouk, “Sigma Delta Modulator Based Multi-Standard Transmitter Design For Wireless Communication Applications”, 10th International Conference on Electrical Engineering (ICEENG 2016). April 19-21, 2016.
- 13) M. Osama, L. Gaber, A. Hussein, “Design of High Performance Pseudorandom Clock Generator for Compressive Sampling Applications” in Radio Science Conference (NRSC), 2016 33rd National, IEEE, 22-25 February 2016.
- 14) K. Mostafa, A. Hussein, Hassan Youness, Mohammed Moness, "High performance reconfigurable Viterbi decoder design for Software Defined Radio." Radio Science Conference (NRSC), 2016 33rd National, IEEE, 22-25 February 2016.
- 15) M. Mourad Mabrook, Aziza I. Hussein, “Major Spectrum Sensing Techniques for Cognitive Radio Networks: A Survey.” International Journal of Engineering and Innovative Technology (IJEIT) Volume 5,

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Issue 3, September 2015.

- 16) M. Osama, A. Hussein. "A Highly-Effective Parallelization of Statistical Time-Consuming Tests of Pseudorandom Number Generators Using CUDA." The 10th IEEE International Conference on Computer Engineering and Systems (ICCES 2015). Cairo, Egypt on December 23-24, 2015.
- 17) Hassan Youness, Aziza Hussein, Amal Mahfoz, "A New Hardware/Software Partitioning Technique." The 10th IEEE International Conference on Computer Engineering and Systems (ICCES 2015). Cairo, Egypt on December 23-24, 2015.
- 18) S. El-sayed, G.Fahmy, Aziza Hussein and F. AlGeldawy, "A Low-Power Dual-Mode Sigma-Delta Modulator Using Charge-Steering Opamps." Radio Science Conference (NRSC), 2016 33rd National, IEEE, 22-25 February 2016.
- 19) M. M. Abo-Zahhad, Aziza I. Hussein, A. M. Mohamed, "Compression of ECG Signal Based on Compressive Sensing and the Extraction of Significant Features," Int. J. Communications, Network and System Sciences, vol. 8, pp. 97-117, April 2015.
- 20) M. M. Abo-Zahhad, Aziza I. Hussein, A. M. Mohamed, "Compressive Sensing Algorithms for Signal Processing Applications: A Survey," Int. J. Communications, Network and System Sciences, vol. 8, pp. 197-216, June 2015.
- 21) M. M. Abo-Zahhad, Aziza I. Hussein, A. M. Mohamed, " ECG Signal Compression Technique Based on DWT and Exploitation of Interbeats and Intrabeats Correlations," Journal of Engineering Sciences (JES), Assiut University, Faculty of Engineering, Vol. 43, No. 6, pp. 1-20, Nov. 2015.
- 22) M. M. Abo-Zahhad, Aziza I. Hussein, A. M. Mohamed, " A Hybrid ECG Compression Technique Based on DWT and Removal of Interbeats and Intrabeats Correlations," Proceedings of the 10th IEEE International Conference on Computer Engineering and Systems (ICCES 2015), pp. 416-422, Cairo-Egypt, December 23-24, 2015.
- 23) M. M. Abo-Zahhad, Aziza I. Hussein, A. M. Mohamed, and A. M. El-Sawy, "A Dedicated Diagnostic Distortion Measure for the Evaluation of

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- ECG Signal Compression Techniques Adopted for Remote Diagnosis of Cardiovascular Diseases," Journal of Engineering Sciences (JES), Assiut University, Faculty of Engineering, Vol. 44, No. 2, March 2016.
- 24) M. M. Abo-Zahhad, Aziza I. Hussein, and A. M. Mohamed, "Compression of ECG Signal Based on Improving the Signal Sparsity Adopting QRS-Complex Estimation and Spatial Domain Transforms," Menoufia Journal of Electronic Engineering Research, MJEER, Menoufia University, Egypt, Vol. 26, No. 2, July 2016.
- 25) M. M. Abo-Zahhad, Aziza I. Hussein, A. M. Mohamed, "Compression of ECG Signal Based on Compressive Sensing and the Exploitation of Interbeats and Intrabeats Correlations," Submitted to International Journal on Digital Signal Processing, Elsevier, 2016, (IF=1.256).
- 26) H. Youness, A. Ibraheim, M. Moness and M. Osama, "An Efficient Implementation of Ant Colony Optimization on GPU for the Satisfiability Problem", IEEE 23rd Euromicro International Conference on Parallel, Distributed and Network based Processing, Turku, Finland, PDP, Mar., 2015.
- 27) S. El-sayed, G. Fahmy, A. Hussein and F. Al-Geldawy, "A Low Power Sigma-Delta Modulator using Charge-Steering Opamp for Bluetooth Application." The 28th IEEE Canadian Conference on Electrical and Computer Engineering (CCECE'2015) , Halifax, Nova Scotia, Canada. May 3-6, 2015.
- 28) A. Sadek, A. Hussein " Flexible LDPC decoder architecture for (3-6) regular codes", 32nd National Radio Science Conference (NRSC 2015), October University for Modern Sciences and Arts, Egypt March 24-26, 2015.
- 29) Aziza I. Hussein " Wearable Computing: Challenges of Implementation and Its Future." The Twelfth Annual Symposium on Learning and Technology, Effat University, Jeddah, Kingdom of Saudi Arabia, April 12-13, 2015
- 30) H. Mogahed, A. Hussein, E. Talkhan, M. Moness, "High Throughput, Low Latency scalable multiplier for reconfigurable fabrics" Al-Azhar Engineering 10th International Conference on December 24 – 26, 2008.
- 31) H. Mogahed, A. Hussein, E. Talkhan, M. Moness, "Fast, scalable, adder for reconfigurable fabrics". Al-Azhar Engineering Ninth International Conference (AEIC), Cairo, Egypt, April 12 - 14, 2007

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- 32) H. Mogahed, A. Hussein, E. Talkhan, M. Moness, "A New register file structure for reconfigurable architecture." The 2nd International Computer Engineering Conference New Technologies for the Information Society (ICENCO), Cairo, Egypt, Dec 26-28, 2006.
- 33) A. Hussein, N. Ibrahim, W. Kuhn, "Accurate formulation of the signal to noise ratio in continuous-time noise shaping A/D converters," IEE Proc.-Circuits Devices Syst., Vol. 153, No. 2, April 2006, pp. 173-178.
- 34) Amira M. Hussien, A. Hussein and M. Moness, "The Effect of the Distribution Power Line Communication", Bulletin of the Faculty of Engineering and Technology, Minia University, June, 2005.
- 35) Mahmoud M. Hussien, A. Hussein and M. Moness, "Design Of (1-1-1) MASH Band Pass SIGMA DELTA Modulator and VGA of Automatic Gain Control for UMTS Receiver", Micate 2005, 3-5 April 2005, El-Minia.
- 36) G. Aty, A. Hussein, I. Ashour, M. Moness, "High Performance Reconfigurable Floating-Point Arithmetic Modules," 22nd National Radio Science Conference (NRSC05), Cairo, Egypt, Mar. 15-17, 2005.
- 37) A. Hussein, N. Ibrahim, H. Mogahed, M. Moness, "Analog front end for ADSL modem," 1st International Computer Engineering Conference New Technologies for the Information Society (ICENCO), Cairo, Egypt, Dec. 27-30, 2004.
- 38) A. Omar, N. Ibrahim, A. Hussein, and M. Azzam, "A new proposal for session key update in DSA-supporting ATM networks," 1st International Computer Engineering Conference New Technologies for the Information Society (ICENCO), Cairo, Egypt, Dec. 27-30, 2004.
- 39) N. Ibrahim, A. Hussein, and E. Ibrahim, "A sign-direction conjugate gradient algorithm," ICTTA'04, Damascus, Syria, Apr. 19-23, 2004.
- 40) A. Hussein, "A 2.4-GHz bluetooth CMOS transceiver for wireless LANs," The 46th IEEE International Midwest Symposium On Circuits & Systems, Cairo, Egypt, 27th-30th Dec., 2003.
- 41) G. Aty, A. Hussein, I. Ashour, and M. Moness, "High-speed, area-efficient FPGA-based floating-point multiplier," International Conference On Microelectronics (ICM), Cairo, Egypt, Dec. 9-11, 2003.
- 42) A. Hussein, N. Ibrahim, and W. Kuhn, "Exact formulation of the signal to noise ratio in continuous-time noise-shaping A/D converters," International Conference on Microelectronics (ICM), Cairo, Egypt, Dec. 9-11, 2003.
- 43) A. Hussein, and N. Ibrahim, "A Design of GSM/UMTS multimode receiver," The 7th World Multiconference on Systemics, Cybernetics and Informatics, Orlando, FL, USA, July 27-30, 2003.
- 44) A. Hussein, N. Ibrahim, and W. Kuhn, "A Design of CMOS wireless receiver employing undersampled continuous-time MASH Bandpass $\Sigma\Delta$ modulator," INES2003, Assiut, Egypt, 4-6 March 2003.
- 45) A. Hussein, N. Ibrahim, and W. Kuhn, "Undersampled continuous-time

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bandpass MASH $\Sigma\Delta$ modulator for wireless communication applications,” NRSC2003, Cairo, Egypt, 18-20 March 2003.

- 46) William B. Kuhn, Aaron W. Orsborn, Matthew C. Peterson, Shobak R. Kythakyapuzha, A. Hussein, Jun Zhang, Jianming Li, Eric A. Shumaker, and Nandakumar C. Nair, "Spiral Inductor Performance in Deep-Submicron Bulk-CMOS with Copper Interconnects," Proceedings of the 2002 IEEE Radio Frequency Integrated Circuits (RFIC) Symposium, pp. 385-388, 2002.
- 47) A. Hussein, W. Kuhn, and N. Ibrahim, "Effect of resonator quality factor on noise-shaping notch of continuous-time bandpass $\Sigma\Delta$ modulators," The 2nd Minia International Conference For Advanced Trends In Engineering, Minia, Egypt, 7-9 Apr., 2002.
- 48) A. Hussein and W. Kuhn, "Bandpass $\Sigma\Delta$ modulator employing undersampling of RF signals for wireless communication," IEEE Trans. Circuits and Systems, No.7, Vol. 47, Jun., 2000, pp. 614-620.
- 49) A. Hussein and W. Kuhn, "Bandpass $\Sigma\Delta$ modulator employing undersampling and on-chip Q-enhanced LC filter, 1999 Southwest Symposium on mixed-signal Design," Tucson, Arizona, USA, pp. 47-51, April 11-13, 1999.
- 50) A. Hussein, D. Gruenbacher, and N. Ibrahim, "Design and verification techniques used in a graduate level VHDL course," 29th ASEE/IEEE Frontiers In Education Conference, 1999, USA.

Training And Professional Development

- Attended training session on "Strategic Planning" Cairo University, Egypt, January 28-29,2017
- Attended training session on "Exams and Students Evaluation Systems" Cairo University, Egypt, January 28-29,2017
- Attended training session on "Research Ethics" Cairo University, Egypt, January 21-22,2017
- Attended training session on " The Credit Hour System" Cairo University, Egypt, January 21-22,2017
- Attended training session on "EndNote", Minia University, Egypt, November 15-16, 2015.
- Attended training on "Cloud Infrastructure and Services v2," Cairo - EMC Corporation, Egypt, September 6-10, 2015.
- Attended training session on "Web Design", Minia University, Egypt, July 26-27, 2015.
- Attended training session on "External audit of institutions of higher education" by Egyptian National Authority for quality assurance and accreditation of education (NAQAAE), held at College of Engineering, Minia University, Egypt, 10-11 Jan. 2014.
- Attended training session on "self-evaluation of institutions of higher education" by Egyptian National Authority for quality assurance and accreditation of education (NAQAAE), held at College of Engineering, Minia University, Egypt, 8-9 Jan. 2014.

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- Attended training session on “Effective Education Institutions of Higher Education” by Egyptian National Authority for quality assurance and accreditation of education (NAQAAE), held at College of Engineering, Minia University, Egypt, 14-15 Dec. 2013.
- Attended training session on “Programs and curriculum maps of institutions of higher education characterization” by Egyptian National Authority for quality assurance and accreditation of education(NAQAAE), held at College of Engineering, Minia University, Egypt, 12-13Dec. 2013.
- Attended training session on “assessment tools” under the program training of trainer (TOT), Minia University, Egypt, OCT 10-12, 2011.
- Attended a training course on “*Infusing the Teaching of Critical and Creative Thinking into Content Instruction*” by Dr. Robert Swartz (an Emeritus faculty member at the University of Massachusetts in Boston and Director of the National Centre for Teaching Thinking (NCTT), the program was organized by the Center of Excellence in Teaching and Learning of Effat University on Tuesday 12th May 2009.
- National Commission for Academic Accreditation and Assessment (NCAAA) training program organized by Naif Arab University for Security Sciences (NAUS) Riyadh, November 22-23, 2008. The training was about Collecting evidence, KPIs and benchmarking.
- Attended training session on “Scientific Publishing”, July 22-24, 2008. organized by the Faculty and Leadership Development Project, Minia University, Egypt.
- Attended training session on “Time and Meetings Management”, organized by the Faculty and Leadership Development Project, Minia University, Egypt, 15-17 July 2008.
- Attended training session on “National and International competitive research projects” organized by Faculty and Leaders Professional Development Project, Ain Shams University, Egypt, April 15-17, 2008.
- Attended a training session on "Communication skills for different Learning Styles", organized by the Faculty and Leaders Development Project at Ain Shams University, Egypt, April 12-14, 2008.
- Attended the Effat College Faculty Institute Workshops on the best practices in effective teaching organized by the Centre of Excellence in Teaching and Learning at Effat in Collaboration with Cincinnati University, Feb10-13, 2008.
- Attended a Training session on “Quality Assurance in Teaching”, organized by the Faculty and Leadership Development Project, Minia University. December25 – 27, 2007.
- Attended a forum on the development of a Strategic Plan for Resettlement and development of bio-medical technology, The First 5 Plans for Science and Technology, Biotech's transfer and development project. King Abdul-Aziz City for Science and Technology, June 20, 2007.
- Attended a workshop on Academic Assessment: Prince Sultan University's Accreditation Review Experiences Workshop, Prince Sultan's University, Women's branch, May 3, 2007.
- Attended a Professional Development Workshop: Principles of Learning and Essential of Problem-Oriented –Learning. Effat College, March28-29, 2007.

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- Attended a workshop by the National Commission for Accreditation & Assessment: Quality Standards for Higher Education Programs."Quality Assurance Workshop" workshop at King Abdul-Aziz University, December 10-11, 2006.
- Attended the 10th Gulf Engineering Forum, "Corporations, Professional Societies, and their Rule in Development and Protection of the Engineering Practice," held in Al-Khobar, Saudi Arabia, Nov. 11-13, 2006.
- Attended Training at Pratt School of Engineering, Duke University, USA through "Effat-Duke Faculty Summer Institute", August 21 – September 1, 2006.
- Attended a workshop on "The Future of Engineering Education in Saudi Arabia" workshop at King Abdul-Aziz University, June 1st 2006
- Attended The First Annual Red Sea Preservation Forum, Effat College, Jeddah, Kingdom of Saudi Arabia, April 5, 2005.

Participation in Conferences

- Attended the Fourteenth Annual Symposium on Learning and Technology, Effat University, Jeddah, Kingdom of Saudi Arabia, Feb 27-28, 2017
- Attended the 2nd National Computing Colleges Conference, University of Hail, Hail, Kingdom of Saudi Arabia, Feb. 22-23, 2017
- Attended the Thirteenth Annual Symposium on Learning and Technology, Effat University, Jeddah, Kingdom of Saudi Arabia, April 10-11, 2016
- Attended the Twelfth Annual Symposium on Learning and Technology, Effat University, Jeddah, Kingdom of Saudi Arabia, April 12-13, 2015
- A member of the Steering and Program Committees of the Seventh Annual Symposium on Learning and Technology, Effat University, Kingdom of Saudi Arabia, , held on June 9th – 10th, 2009.
- Chair of the Steering Committee of the Third Science and Engineering Fair, organized by the Electrical and Computer Engineering Department in collaboration with IS, CS and ARCH Departments, Effat University, held on 21st April 2009.
- A Member in the Steering and Program Committees of the Sixth Annual Symposium on Learning and Technology (Cyber Citizenship: vistas and visions), Jeddah Hilton, Kingdom of Saudi Arabia, held on April 26 -27, 2008.
- Chair of the Steering Committee for the Science and Engineering Fair 2008 (Women in Engineering: The New Frontier) held on 8th April 2008 at Effat College.
- Attended the 4th Gulf Conference on Value Engineering, Jeddah Hilton, Kingdom of Saudi Arabia, April 22 – 23, 2008.
- Chair of the Steering Committee for the Science and Engineering Fair 2007 (Shaping the future) held on 2nd April 2007 at Effat College.
- A member of Translation Committee on the Fifth Annual Symposium on Learning and Technology (Digital Literacy: No Boundaries, No Limits), Jeddah Hilton, Kingdom of Saudi Arabia, January 13 – 14, 2007.
- A member of the Academic and Translation Committees on the Fourth Annual Symposium on Learning and Technology (Bridging the Divide), Jeddah Hilton, Kingdom of Saudi Arabia, March 29-30 2006
- A member of the Information Committee on Learning and Technology, Jeddah Hilton, Kingdom of Saudi Arabia, Mar. 15-16, 2005.
- Attended The 46th IEEE International Midwest Symposium On Circuits &

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Systems, Cairo, Egypt, 27th-30th Dec., 2003.

- Attended The Seventh IEEE International conference on Intelligent Engineering Systems INES 2003, Assiut, Egypt, 4-6 March 2003.
- Attended The 2nd Minia International Conference for Advanced Trends In Engineering, Minia, Egypt, 7-9 Apr., 2002.
- 1999 Southwest Symposium on mixed-signal Design,” Tucson, Arizona, USA, pp. 47-51, April 11-13, 1999.

Professional Affiliations and Activities

- Presented a lecture about recent VLSI technologies and challenges in 2/12/2015.
- Supervised and organized the Line Follower competition (1) in 25/2/2015.
- Supervised and organized the Line Follower competition (1) in 30/3/2014.
- Supervised and organized the Line Follower competition (1) in 17/3/2013.
- Supervised and organized the IEEE Innovation Day (4) in 6 and 7 April 2015.
- Supervised and organized the IEEE Innovation Day (3) in 8 and 9 April 2014.
- Supervised and organized the IEEE Innovation Day (2) in 9 and 10 April 2013.
- Supervised and organized the IEEE Innovation Day (1) in 8/5/2012.
- Head of VLSI, Minia Section (2014-2016).
- Head of IEEE, Minia Section (2012-2016).
- Member of the board of directors of faculty and leadership development centre, Minia University, Egypt.
- Member of Cultural Relationship Committee, Faculty of Engineering, Minia University, Egypt.
- Member of production Unit, Steering Committee, Faculty of Engineering, Minia University, Minia, Egypt.
- Member of Consultation Unit, Steering Committee, Faculty of Engineering, Minia University, Minia, Egypt.
- Member of Laboratory committee, Faculty of Engineering Minia University, Egypt.
- Active IEEE member, Western Region, Egypt
- Active IEEE member, Western Region, Kingdom of Saudi Arabia (KSA).
- Chair of the Women in Engineering, section of Saudi Arabia, West in R8.
- Member of Egyptian Council of Engineers.
- Member of Saudi Council of Engineers.
- A member of the Quality Assurance Steering Committee, Effat College, KSA.
- A member of the Faculty Development Committee, Effat College, KSA.
- A member of the Research Council Committee, Effat College, KSA.
- Reviewer for IEEE Transaction on Circuits and Systems I.
- Reviewer for the Microelectronics Journal.
- Reviewer for the 19th World Multi-Conference on Systemics, Cybernetics And Informatics: (WMSCI 2015), Orlando, FL, USA from July 12 to 15, 2015.
- Reviewer for the 9th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI), Orlando, FL, USA from 10 to 13 July, 2005.
- Reviewer for the 11th International Conference on Information Systems Analysis and Synthesis (ISAS).
- Reviewer for the 2nd International Conference on Cybernetics, Information Technologies, Systems, and Applications (CITSA), Orlando, FL, USA from July 14 to 17, 2005.

RESUME of Dr. AZIZA I. HUSSEN

Activities Beneficial to Society

- General supervisor and founder of the IEEE student branch at Minia university, Egypt.
- General supervisor of VLSI Egypt group at Minia university, Egypt.
- General supervisor and founder of the Women in Engineering Club at Effat College, it was established in December 2007, and aims to stimulate interest in engineering science and technology among students, encourage students to work independently in their areas of interest like electronics, computers, physics and mathematics, and also to develop their initiative and creativity.
- Supervision of camps for students to gain hands-on experience in the design of simple electronic devices, Minia University, Egypt, 2002-2004, 2014.
- Leading groups of students to participate in country-wide competitions
- A judge in University competitions
- Teaching intensive courses in Microsoft products to students elected by the Ministry of Telecommunications and Information in Egypt to qualify them for jobs
- Encouraging women in Saudi Arabia to study engineering through the media and listed are some examples:
 - Alhayat Newspaper, on 24/11/2005, in Arabic.
"من خلال تدشين أول برنامج اختصاصي للمرأة السعودية ... السعوديات يبدأن استعدادهن للالتحاق بالمجال الهندسي."
 - Okaz Newspaper, on 18/03/2006, in Arabic.
"اعتماد أول برنامج للبنات في الهندسة يستغرق 5 سنوات".
 - Okaz Newspaper, on 13/12/2005, in Arabic.
"برنامج سعودي بمواصفات عالمية يتيح فرصا وظيفية للمهندسات .. د. عزيزة."
 - Arab News, on 15/02/2006, in English. "Women's college starts engineering program."
 - Al-Riyadh Newspaper, on 27/05/2006, in Arabic.
"المرأة السعودية تلتحق بسوق العمل التقني".
- Chair of the Steering Committee for the Science and Engineering Fair, Effat College university, 2007-2010.
- Presented the following lectures:
 - "The Promising Future of Women in Engineering". Effat Faculty Lecture Series 2005 – 2006, Effat Collage, KSA, November 22, 2005.
 - "Writing an Effective Syllabus". The Faculty Development Center Workshop 2007, Effat Collage, KSA, February 12, 2007.
 - "Key Performance Indicator". Workshop Effat University, KSA. January, 2009.