Mohamed Shaheen

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EDUCATION

- PhD in Computer Engineering, University of Louisiana at Lafayette, USA, December 2003, GPA=4.00/4.00.
- Master of Science in Computer Engineering, University of Louisiana at Lafayette, USA, 2000, GPA=4.00/4.00.
- Master of Science in Computer Engineering, Arab Academy for Science and Technology, Egypt, 1998, GPA=3.89/4.00.
- Bachelor of Science in Computer Science, Alexandria University, Egypt, 1991, with grade "V. Good with degree of honor".

EXPERIENCE

Academia

July 10 - Current	Associate Professor at Arab Academy for Science and Technology and Maritime Transport (AASTMT)
	Duties included teaching undergraduate and graduate classes, student advising, research, university administrative service, professional service, and outreach
Oct. 03 – June 10	<u>Graduate Faculty</u> at the Center for Advanced computer studies, University of Louisiana at Lafayette (UL-Lafayette). Duties included teaching and conducting research in the field of computer engineering/Science for algorithms, wireless sensor networks, and low power, high-reliability microelectronic design and automation; Devising and creating research prototypes to demonstrate feasibility of proposed research; Managing and guiding the members of the research team including staff members and graduate students; Seeking to establish links with industrial partners to facilitate technology transfer of research results; Writing scientific research papers, monographs, and Developing future research proposals for federal grants.
Sep.99 – Oct. 03	<u>Research Assistant</u> at the Center for Advanced computer studies (VLSI lab), University of Louisiana at Lafayette (UL-Lafayette). Projects included low power CAD tools; Multi-voltage scheduling, Allocation and Binding for low power synthesis, Video compression and Motion Estimation Architectures, Interconnect noise analysis, Alumni database.
Jan. 01 – May 03	Instructor at the Computer Science Department, Faculty of Science – UL-Lafayette, LA.
Sep.99 – Dec.99	<u>DBA</u> using Perl, and Postgress database at the Center for Advanced Computer Studies, UL-Lafayette, LA.
Jan 92 – Aug 99	<u>Part-time Instructor</u> Teaching Microsoft Office (word, excel, access, power point), programming languages (Basic, Fortran, Pascal, C++), Operating System (Unix, Unix system administration)

Industry

Jul. 91 – Aug. 99	Senior Analyst Programmer using 4GL Informix, SQL, and C Language under Unix
	for approximately 8 years at AASTMT, Egypt.

My duties included system analysis, data modeling, query optimization and tuning for
database applications, converting data from COBOL files to Informix database files,
and support for junior programmers.

AREAS OF INTEREST

Software Engineering, Algorithms, Wireless Sensors Network, Embedded Systems, Network on Chip, Video Processing, and Data fusion.

PLATFORMS AND TOOLS

- C, C++, Perl, AWK, Matlab, Informix, SQL, HTML, Macromedia Dreamweaver, Macromedia Fireworks, cgi, assembly, Unix, Windows.

AWARDS

- Mohamed Shaheen and Ahmed Magdy Ezzeldin, "Arabic Question Answering: Systems, Resources, Tools, and Future Trends," Arabian Journal for Science and Engineering, DOI 10.1007/s13369-014-1062-2, Print ISSN: 1319-8025, Online ISSN: 2191-4281, Springer Berlin Heidelberg, 2014, an AAST cash prize for publishing in high Impact Factor journal.
- Elevated to the IEEE Senior Member grade in 2004.
- Mohamed A. Elgamel, Stacy Crochet, and Magdy A. Bayoumi, "Re-Spacing Framework for Interconnect Cross coupling Noise Reduction," 46th IEEE International Midwest Symposium on Circuits and Systems, (MWSCAS'2003), December 27-30, 2003, Cairo, Egypt, First place winner, "the best student paper award contest".
- 2002 Richard E. Merwin Student Scholarship for demonstrating outstanding involvement in an IEEE-CS and excellence in academic achievement, <u>http://computer.org/students/schlrshp.htm</u>.
- 2002 IEEE_CS Best Student Chapter Award while being the president of the IEEE-CS student branch chapter at UL Lafayette for the 2001-2002 year.
- Mohamed A. Elgamel, Ahmed M. Shams, Xi Xueling, and Magdy A. Bayoumi, "Low Power Full Search Block Matching Motion Estimation VLSI Architectures," Third place winner, University of Louisiana, IEEE Computer Society, 2000-2001 Student Paper Contest.
- Mohamed A. Elgamel and Magdy A. Bayoumi, "On Low Power High Level Synthesis Using Genetic Algorithms," Third place winner, University of Louisiana, IEEE Computer Society, 2001-2002 Student Paper Contest.
- Honored at the Spring Honors Convocation, University of Louisiana, spring 2000.
- Undergraduate Fellowships, Alexandria University, Egypt. (1986,1987,1988,1989,1990)

GRANTS

- Co-Principle Investigator, "Circuits, Systems, and Architectures for Low Power Mobile Computing and Sensor Applications," Governor's Information Technology Initiative (ITI), funded by State of Louisiana, (renewed annually 2003-2007).
- Co-Principle Investigator, "A Paradigm for Prototyping of Commercially Viable Surveillance and Communication Systems," Governor's Information Technology Initiative (ITI), funded by State of Louisiana, (renewed annually 2003-2007).
- Co-Principle Investigator, "Scalable Middleware for Desktop visualization of LITE Applications," Governor's Information Technology Initiative (ITI), funded by State of Louisiana, (2007-2010)
- Co-Principle Investigator, "A Framework for Automated Scene Surveillance: Algorithms, Architecture, and Prototyping," NSF, Award number OISE-0512403 (2005-2007).
- Co-Principle Investigator, "CRI: MEMS Integration Infrastructure," NSF, Award number CNS-0551478, (2006-2008).

- Co-Principle Investigator, "US-Egypt Cooperative Research: Design of Smart Sensor and Its Implementation in Wireless Sensors Network," NSF, Award number OISE-0707235 (2007-2009).
- Co-Principle Investigator, "U.S.-Egypt Workshop on: Ubiquitous Computing: Sensors and Wireless Sensor Networks, Cairo, Egypt," NSF, Award number OISE- 0723952 (2007-2009).
- Investigator with the International Center of Excellence in Software Engineering (ICESE), which is funded by the Qatar National Research Fund ("QNRF") (a member of Qatar Foundation) under the fund agreement [NPRP 09-1205-2-470], 2009-2014.
- Visiting International Telematic University, UNINETTUNO, from 20 January 2013 till 17 February 2013 working on the University e-learning training program, funded by MEDASTAR (Mediterranean Area for Science, Technology and Research), co-operation between Europe, Egypt, and Lebanon, Erasmus Mundus Action 2 2012 Scholarship.
- Principle Investigator, "Cloud Based 3D Teleradiology for Rural Areas," Grant writing fund from Smart Critical Infrastructure (SmartCI) research center, an academic excellence center for research and innovation under Virginia Tech-Middle East & North Africa (VT-MENA) project, from October 2013 - March 2014.

SCIENTIFIC ACTIVITIES

- A reviewer for International Conference on Computer Theory and Applications (ICCTA 2013)
- A reviewer for the National Priorities Research Program (NPRP), which is a funding program of the Qatar National Research Fund (QNRF).
- A reviewer for The European Association for Signal, Speech and Image Processing (EURASIP) Journal on Applied Signal Processing (EURASIP JASP), Canadian Journal of Electrical and Computer Engineering (CJECE), IEEE Transactions on Circuits and Systems I, IEEE Transactions on Signal Processing, Integration journal, Kluwer Journal, IEEE transaction on Multimedia, IEEE Transactions on Very Large Scale Integration Systems, International Journal of Sensor Networks (IJSNET-2013)
- A reviewer for ISCAS (2003-2006), ICASSP (2003-2006), ICIP (2007-2013), MWSCAS2003, ASAP 2004, SiPS 2004 conferences.
- A Reviewer Committee Member (RCM) for ISCAS (2007, 2010).
- A session chair for VLSI Systems and Applications regular and poster sessions for ISCAS (2007-2009).
- An organizer and local arrangement for ISCAS 2007.
- Program committee member for SIPS2000, DCV01, DCV02 workshops.
- Being the president of the IEEE-CS student branch chapter at UL-Lafayette for the 2001-2002 year.
- An administration committee member to the Computer Scientific Society (CSS)
- Being a member to Upsilon Pi Epsilon Honor Society for the Computer Sciences, Senior IEEE, IEEE-CS, ACM, Special Interest Group on Design Automation (SIGDA), The Technical Committee on Circuits and Systems for Communication (CASC-TC), The Technical Committee on VLSI Systems & Applications (VSA-TC).
- Supervising master and PhD students in the Computer Engineering Department.
- Partnering with industry for industrial ties research and technology transfer.
- Finished MBA classes like "Survey of Management & Management Information Systems" and "Organizational Behavior & Leadership".
- Visiting Professor at the International Telematic University, UNINETTUNO, Rome, Italy, from 20 January 2013 till 17 February 2013. This was a staff exchange mobility funded by MEDASTAR (Mediterranean Area for Science, Technology and Research) project and I was one of the only 5 that were selected this year. This project aims for broader co-operation between Europe, Egypt and Lebanon putting emphasis on science, technology and research.
- An administration committee member to the Computer Scientific Society
- Attending the 1- Competing for research fund, 2- Use of technology in teaching, 3- International

publishing of scientific research, 4- Communication skills workshops.

PUBLICATIONS

Books

1. **Mohamed A. Elgamel** and Magdy A. Bayoumi, "Interconnect Noise Optimization in Nanometer Technologies," ISBN 0-387-25870-1, Springer, 2006.

Chapters in Books

2. **Mohamed A. Elgamel** and Magdy A. Bayoumi, two chapters in "The Electrical Engineering Handbook," Elsevier Academic Press, 2005.

Papers in Refereed Journals

- 3. Mohamed Shaheen and Ahmed Magdy Ezzeldin, "Arabic Question Answering: Systems, Resources, Tools, and Future Trends," Arabian Journal for Science and Engineering, DOI 10.1007/s13369-014-1062-2, 2014, Print ISSN: 1319-8025, Online ISSN: 2191-4281, Springer Berlin Heidelberg.
- Zaher Merhi, Mohamed Elgamel, Samih Abdul-Nabi, Amin Haj-Ali, and Magdy Bayoumi, "EVAM-MAC: An Event Based Medium Access Control for Wireless sensor Networks with Multihop Support," IJCSI International Journal of Computer Science Issues, Vol. 10, Issue 4, No 2, July 2013, ISSN (Print): 1694-0814 | ISSN (Online): 1694-0784, IF=0.242.
- 5. **Mohamed Shaheen Elgamel**, Ezzat A. Korani, and Kariman R. El Helow, "Developing a Software Certification for Quality Assurance," Egyptian Computer Science Journal, ECS, Vol. 37 No.1, January 2013, ISSN: 1110-2586.
- Heba Ezzat Ibrahim, Sherif M. Badr, and Mohamed A. Shaheen, "Adaptive Layered Approach using Machine Learning Techniques with Gain Ratio for Intrusion Detection Systems," International Journal of Computer Applications (IJCA), Volume 56– No.7– Page 10-16, October 2012, ISSN: 0975-8887, IF=0.821.
- 7. Heba Ezzat Ibrahim, Sherif M. Badr and **Mohamed A. Shaheen**, "Phases vs. Levels using Decision Trees for Intrusion Detection Systems," (IJCSIS) International Journal of Computer Science and Information Security, Vol. 10, No. 8, 2012, ISSN: 1947-5500.
- Xiaodong. Zhang, Mohamed Elgamel, Magdy A. Bayoumi, "Gaussian pulse approximation using standard CMOS and its application for sub-GHz UWB impulse radio," International Journal of Circuit Theory and Applications, Volume 38, Issue 4, Pages 383-407, May 2010, Print ISSN: 0098-9886 Online ISSN: 1097-007X, IF=1.625.
- 9. Zaher Merhi, **Mohamed Elgamel**, Magdy Bayoumi, "A Lightweight Collaborative Fault Tolerant Target Localization System for Wireless Sensor Networks," IEEE Transactions on Mobile Computing, vol. 8, no. 12, pp. 1690-1704, December 2009, ISSN: 1536-1233, IF= 2.283.
- N. Wang, A. Sanusi, P. Y. Zhao, S. Mohamed and M. A. Bayoumi, "PMCNOC: A Pipelining Multi-Channel Central Caching Network-on-Chip Communication Architecture Design," Journal of Signal Processing Systems, Springer, June 2009, ISSN 1939-8018 (Print) 1939-8115 (Online), DOI 10.1007/s11265-009-0379-7, IF=0.672.
- Yasser Ismail, Mohammed A. Elgamel, and Magdy A. Bayoumi, "Fast Variable Padding Motion Estimation Using Smart Zero Motion Prejudgment technique for Pixel and Frequency Domains," IEEE Transactions on Circuits and Systems for Video Technology, vol. 19, no. 5, May 2009, ISSN: 1051-8215, IF=1.819.
- 12. Sumeer Goel, **Mohamed A. Elgamel**, Magdy A. Bayoumi, and Yasser Hanafy, "Design Methodologies for High-Performance Noise-Tolerant XOR-XNOR Circuits," IEEE Transactions on Circuits and Systems I: Regular Papers: Vol. 53, No. 4, April 2006, ISSN: 1549-8328, IF=2.24.
- 13. Mohammed Elgamel, Md Ibrahim Faisal, and Magdy Bayoumi, "Noise Metrics in Flip-Flop Designs," Special Issue on Recent Advances in Circuits and Systems, the Institute of Electronics,

Information and Communication Engineers, IEICE, Transactions on Information and Systems, vol. E88-D, pp. 1501-1505, July 2005, ISSN: 0916-8532, IF=0.178.

- Mohamed A. Elgamel, Ashok Kumar, and Magdy A. Bayoumi, "Efficient Shield Insertion for Inductive Noise Reduction in Nanometer Technologies," IEEE Trans. on VLSI Systems, vol. 13, no. 3, pp. 401-405, March 2005, ISSN: 1063-8210, IF=1.218.
- 15. Mohamed A. Elgamel, Ahmed M. Shams, Magdy A. Bayoumi, and Bertrand Zavidovique "Low Power Full Search Block Matching Motion Estimation VLSI Architectures," Special issue on VLSI for Digital Video Processing in the Journal of Circuits, Systems and Computers, JCSC, (world scientific), vol. 13, no. 6, pp. 1271-1288, December 2004, Print ISSN: 0218-1266, Online ISSN: 1793-6454, IF=0.281.
- Ashok Kumar, Magdy A. Bayoumi, and Mohamed A. Elgamel, "A Methodology for Low Power Scheduling with Resources Operating at Multiple Voltages," Integration VLSI Journal, vol. 37, Issue 1, pp. 29-62, Feb 2004, ISSN: 0167-9260, IF=0.646.
- Mohamed A. Elgamel and Magdy A. Bayoumi, "Interconnect Noise Analysis and Optimization in Deep Submicron Technology," IEEE Circuits and Systems Magazine, vol.3, no. 4, pp. 6-17, 2003, ISSN: 1531-636X, IF=1.667.

Papers in Refereed Conference Proceedings

- Mohamed Shaheen Elgamel, Ahmed Eid El Yamany, "Smart OptiSelect Preference Based Innovative Framework for User-in-the-Loop Feature Selection in Software Product Lines," The 7th International Conference on Information Technology, ICIT 2015, Amman, Jordan, May 12-15, 2015.
- 19. Mohamed Elgamel, Abdulhalim Dandoush, "Efficient Low Cost Range-Based Localization Algorithm for Ad-hoc Wireless Sensors Networks," [Research Report] 2014, pp.25. https://doi.org/10.1072/160
- 20. Abdulhalim Dandoush and **Mohamed Elgamel**, "Analytical Model for Service Response Time in Distributed Systems," 24th International Conference on Computer Theory and Applications (ICCTA) Alexandria, Egypt, October 2014.
- 21. Ahmed Eid El Yamany, **Mohamed Shaheen**, and Abdel Salam Sayyad, "OPTI-SELECT: An Interactive Tool for User-in-the-Loop Feature Selection in Software Product Lines," 18th International Software Product Line Conference, Florence, Italy, September 15-19, 2014.
- 22. Ahmed Abd El-Nasser, **Mohamed Shaheen**, and Hesham El-Deeb, "Enhanced Leukemia Cancer Classifier Algorithm," Science and Information Conference, 2014 August 27-29, 2014, London, UK.
- 23. Ahmed Abd El-Nasser, **Mohamed Shaheen**, and Hesham El-Deeb, "Leukemia Cancer Comparative Classifiers Suite," 9th International Conference on Electrical Engineering, ICEENG, Military Technical College, Kobry El-Kobbah, Cairo, Egypt, *27-29 May*, *2014*
- 24. Ahmed Magdy, and **Mohamed Shaheen**, "A Survey of Arabic Question Answering: Challenges, Tasks, Approaches, Tools, and Future Directions, "The 13th International Arab Conference on Information Technology (ACIT'2012), Dec. 10-13, 2012, CCIS, Zarqa University, Jordan.
- 25. Amr AbdelFatah Ahmed, **Mohamed Shaheen**, and Essam Kosba, "Software Testing Suite Prioritization using Multi-Criteria Fitness Function," Proceeding of 22nd International Conference on Computer Theory and Applications Alexandria, Egypt, October 2012.
- 26. **Mohamed Shaheen Elgamel**, Ezzat A. Korani & Kariman R. El Helow, "Developing a Software Certification for Quality Assurance," The 8th International Conference on Informatics and Systems (INFOS 2012), May 14-16, 2012, Cairo, Egypt.
- 27. H. H. Ammar, T. Menzies, O. Shata, A. Erradi, M. Kessentini, W. Abdelmoez, M. Kholief, M. Shaheen, M. Abdelhamid, A. AbdelHamid, M.A. Omar, and Mohamed Salah Hamdi, "The International Center of Excellence in Software Engineering," Communications of the Arab Computer Society, Vol. 4 No.2, December, 2011.
- 28. Abdelbaki Hamadene, Osama Badawy, and Mohamed Shaheen, "ARQA: An Intelligent Arabic

Question Answering System," Arabic Language Technology International Conference (ALTIC) 2011_October 9-10, 2011, Bibliotheca Alexandrina (B.A.), Alexandria, Egypt.

- 29. Zaher Merhi, **Mohamed Elgamel**, and Magdy Bayoumi, "EVA-MAC: An Event-Based Adaptive Medium Access Control for Wireless Sensor Networks," The 2011 IEEE Workshop on Signal Processing Systems (SiPS2011), October 4-7, 2011, Beirut, Lebanon.
- 30. Zaher Merhi, **Mohamed Elgamel**, Rafic Ayoubi, and Magdy Bayoumi, "TALS: Trigonometrybased Ad-hoc Localization System for Wireless Sensor Networks," The 7th International Wireless Communications and Mobile Computing Conference (IWCMC 2011), July 5-8, 2011, Istanbul, Turkey.
- 31. Yasser Ismail, Mohsen Shaaban, Jason McNeely, **Mohamed Elgamel**, and Magdy A. Bayoumi, "An Efficient Area Manipulation Architecture for Frequency Domain Encoding Process," IEEE International Symposium on Circuits & Systems ISCAS 2010, May 30 June 2, 2010, Paris, France.
- 32. A. Abdelgawad Zaher Merhi, **Mohamed Elgamel**, Magdy Bayoumi, and Amal Zaki, "Data Fusion Framework for Sand Detection in Pipelines," IEEE International Symposium on Circuits & Systems ISCAS 2009, May 24-27, 2009, Taipei, Taiwan.
- 33. Zaher Merhi, Mohamed Elgamel and Magdy Bayoumi, "EB-MAC: A Medium Access Control for Wireless Sensor Networks for Event Based Systems", the 5th IEEE PerCom International Workshop on Sensor Networks and Systems for Pervasive Computing (PerSeNS 2009) in conjunction with PerCom 2009, March 9-13, 2009, Galveston, Houston.
- 34. A. Abdelgawad, Zaher Merhi, **Mohamed Elgamel** and Magdy Bayoumi "Multisensor Data Fusion Methods for Petroleum Engineering Applications" IEEE Sensors Application Symposium (SAS 2009), February 17-19, 2009, New Orleans, USA.
- 35. Yasser Ismail, **Mohamed Elgamel**, J. Luis Tecpanecatl-Xihuitl, and Magdy Bayoumi, "An Adaptive Block Size Phase Correlation Motion Estimation using Smart Multireference Frames Selection in Frequency Domain," 41st Annual Asilomar Conference on Signals, Systems, and Computers, November 4 7, 2007, Pacific Grove, California.
- 36. Yasser Ismail, **Mohamed Elgamel**, and Magdy Bayoumi, "Adaptive Techniques for a Fast Frequency Domain Motion Estimation," The 2007 IEEE Workshop on Signal Processing Systems (SiPS2007), October 17-19, 2007, Shanghai, China.
- 37. Nan Wang, Azeez Sanusi, Peiyi Zhao, **Mohamed Elgamel**, and Magdy Bayoumi, "PMCNOC: A Pipelining Multi-Channel Central Caching Network-On-Chip Communication Architecture," The 2007 IEEE Workshop on Signal Processing Systems (SiPS2007), October 17-19, 2007, Shanghai, China.
- 38. Zaher Merhi, **Mohamed Elgamel**, and Magdy Bayoumi, "Acoustic Target Localization in Sensor Networks with FUZZYART," The IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2007), August 5-8, 2007, Montreal, Canada.
- 39. Yasser Ismail, **Mohamed Elgamel**, and Magdy Bayoumi, "A Fast Block-Based Motion Estimation Using Early Stop Search Techniques for H.264/AVC Standard," The IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2007 & NEWCAS 2007), August 5-8, 2007, Montreal, Canada.
- 40. Zaher Merhi, **Mohamed Elgamel**, and Magdy Bayoumi, "Fully Decentralized Weighted Kalman Filter for Wireless Sensor Networks with FuzzyART Neural Networks," The 12th IEEE Symposium on Computers and Communications (ISCC 2007), July 1-4, 2007, Aveiro, Portugal.
- 41. Muhieddine ElKaissi, **Mohamed Elgamel**, Magdy Bayoumi, and Bertrand Zavidovique, "SEDLRF: A New Door Detection System for Topological Maps," The 2006 IEEE International Workshop on Computer Architecture for Machine Perception and Sensing (CAMPS06), September 18-20, 2006, Montreal, Canada.
- 42. A. Abdelgawad, Adam Lewis, **M. Elgamel**, Fadi Issa, N.-F. Tzeng, and M. Bayoumi, "Remote Measuring of Flow Meters for Petroleum Engineering and Other Industrial Applications," The 2006 IEEE International Workshop on Computer Architecture for Machine Perception and Sensing

(CAMPS06), September 18-20, 2006, Montreal, Canada.

- 43. Zaher Merhi, Milad Ghantous, **Mohammad Elgamel**, Magdy Bayoumi, And Ayman El-Desouki, "A Fully-Pipelined Parallel Architecture for Kalman Filter Tracking," The 2006 IEEE International Workshop on Computer Architecture for Machine Perception and Sensing (CAMPS06), September 18-20, 2006, Montreal, Canada.
- 44. Ramy Aly, Magdy Bayoumi, and **Mohamed Elgamel**, "Dual Sense Amplified Bit Lines (DSABL) Architecture for Low-Power SRAM Design," 2005 IEEE International Symposium on Circuits and Systems (ISCAS'2005), May 23-26, 2005, Kobe, Japan.
- 45. Yijun Li, **Mohamed Elgamel**, and Magdy Bayoumi, "A Partial Parallel Algorithm and Architecture for Arithmetic Encoder in JPEG2000," 2005 IEEE International Symposium on Circuits and Systems (ISCAS'2005), May 23-26, 2005, Kobe, Japan.
- 46. Muhieddine El Kaissi, **Mohamed Elgamel**, and Magdy Bayoumi, "Localization, Mapping and Feature Discovery of a Platoon of Cooperative Heterogeneous Mobile Robots Using Colored Circles and RGB Images," 1st International Computer Engineering Conference- New Technologies for the Information Society, Cairo, Egypt, December 27-30, 2004.
- 47. **Mohamed A. Elgamel**, Stacy Crochet, and Magdy A. Bayoumi, "Re-Spacing Framework for Interconnect Cross coupling Noise Reduction," 46th IEEE International Midwest Symposium on Circuits and Systems, (MWSCAS'2003), December 27-30, 2003, Cairo, Egypt.
- 48. **Mohamed A. Elgamel**, and Magdy A. Bayoumi, "An Efficient Minimum Area Spacing Algorithm for Noise Reduction," 10th IEEE International Conference on Electronics, Circuits and Systems (ICECS'2003), December 14-17, 2003, Sharjah, United Arab Emirates.
- 49. **Mohamed A. Elgamel** and Magdy A. Bayoumi, "Minimum-Area Shield Insertion for Explicit Inductive Noise Reduction," 16th Symposium on Integrated Circuits and System Design (SBCCI 2003), CHIP IN SAMPA, September 8-11, 2003, São Paulo, Brazil.
- 50. Sumeer Goel, **Mohamed A. Elgamel** and Magdy A. Bayoumi, "Novel Design Methodology for High-Performance XOR-XNOR Circuit Design," 16th Symposium on Integrated Circuits and System Design (SBCCI 2003), CHIP IN SAMPA, September 8-11, 2003, São Paulo, Brazil.
- 51. Mohamed A. Elgamel and Magdy A. Bayoumi, "An Efficient Approach for Reducing Inductive Noise Using Shield Insertion," IEEE International SOC Conference, September 17-20, 2003, Portland, OR, USA.
- 52. Sumeer Goel, **Mohamed A. Elgamel**, and Magdy A. Bayoumi, "Energy Efficient and Noise-Tolerant XOR-XNOR Circuit Design," The 2003 International Conference on VLSI (VLSI-03), June 23-26, 2003, Monte Carlo Resort, Las Vegas, Nevada, USA.
- 53. **Mohamed A. Elgamel**, Sumeer Goel, and Magdy A. Bayoumi, "Noise Tolerant Low Voltage XOR-XNOR for Fast Arithmetic," 2003 Great Lakes Symposium on VLSI (GLSVLSI2003), April 28-29, 2003, Washington D.C.
- 54. **Mohamed A. Elgamel**, K.S. Tharmalingam, and Magdy A. Bayoumi, "Noise-Constrained Interconnect Optimization for Nanometer Technologies," 2003 IEEE International Symposium on Circuits and Systems (ISCAS'2003), May 25-28, 2003, Bangkok, Thailand.
- 55. **Mohamed A. Elgamel**, K.S. Tharmalingam, and Magdy A. Bayoumi, "Crosstalk Noise Analysis in Ultra Deep Submicrometer Technologies," IEEE Computer Society Annual Symposium on VLSI (ISVLSI'2003), February 20-21, 2003, Tampa, Florida, USA.
- 56. **Mohamed A. Elgamel**, Bharat R. Nallamilli, and Magdy A. Bayoumi, "Systolic Array Architectures for Full-Search Block Matching Motion Estimation," Third International Workshop on Digital and Computational Video (DCV'02), November 14-15, 2002, Clearwater Beach, Florida, USA.
- 57. Sai K. Sadhu, **Mohamed A. Elgamel**, and Magdy A. Bayoumi, "Low Power Full Search Block Matching Motion Estimation Architecture," Third International Workshop on Digital and Computational Video (DCV'02), November 14-15, 2002, Clearwater Beach, Florida, USA.
- 58. **Mohamed A. Elgamel**, and Magdy A. Bayoumi, "On Low Power High Level Synthesis Using Genetic Algorithms," 9th IEEE International Conference on Electronics, Circuits and Systems

(ICECS'2002), September 15-18, 2002, Dubrovnik, Croatia.

- 59. **Mohamed A. Elgamel**, Stacy Crochet, and Magdy A. Bayoumi, "SoC Interconnect in Deep Submicron," 45TH IEEE International Midwest Symposium on Circuits and Systems, (MWSCAS'2002), August 4-7, 2002, Tulsa, Oklahoma, USA.
- 60. **Mohamed A. Elgamel** and Magdy A. Bayoumi, "Noise tolerant low power dynamic TSPCL D flipflops," 2002 IEEE Computer Society Annual Symposium on VLSI (ISVLSI'2002), April 25 – 26, 2002, Pittsburgh, Pennsylvania, USA.
- 61. **Mohamed A. Elgamel**, Ahmed Shams, Xi Xueling, and Magdy A. Bayoumi, "Enhanced Low Power Motion Estimation VLSI Architectures for Video Compression," 2001 IEEE International Symposium on Circuits and Systems (ISCAS'2001), May 6-9, 2001, Sydney, Australia.
- 62. Ahmed M. Shams, **Mohamed A. Elgamel**, and Magdy Bayoumi, "Hybrid Mesh-Based/Block-Based Motion Compensation Architecture," Second USF International Workshop on Digital and Computational Video (DCV'01), February 9, 2001, Tampa, Florida, USA.
- 63. **M. Elgamel**, A. Shams, and M. Bayoumi, "A Comparative Analysis for Low Power Motion Estimation VLSI Architectures," 2000 IEEE Workshop on Signal Processing Systems, SIPS'2000, pp. 149-158, October 11-13, 2000, Lafayette, LA, USA.
- 64. **M. Elgamel**, Y. Hanafy, and Y. Elgamel, "Accelerating the RISC Processor Using Programmable Floating Point Units," ICCTA'98 (8th International Conference on Computer Theory and Applications), Aug. 1998, Alexandria, Egypt.