Shawkat K. Guirguis

Date & Place of birth

25th February, 1958, Alexandria, Egypt

Affiliation

+ **Vice Dean for Graduate Studies and Research**
  Institute of Graduate Studies & Research (IGSR), Alexandria University.
+ **Professor of Computer Science & Informatics,**
  Department of Information Technology,
+ **Ex. Head, Department of Information Technology**
+ **Quality Assurance Manager, Air Lab, IGSR**
+ **Executive Manager Deputy, HLCP, Air pollution lab accreditation project, IGSR**
+ **Quality Assurance Manager, Plasma Atomic Emission Lab., IGSR**
+ **Executive Director, Special Unit, IGSR.**
+ **Internal Auditors Team Leader, Quality Assurance Unit, IGSR.**

Contact address

+ **Institute of Graduate Studies & Research (IGSR), Alexandria University.**
  163 El-Horreya Avenue, P.O.Box 832, Alexandria, Egypt.
  Tel: +2-0122-3737230
+ **e-mail: shawkat_g@yahoo.com**

Qualifications

B.Sc. Computer Science & Automatic Control, Faculty of Engineering, Alexandria University, June 1981
Grade: "*Distinction with the degree of honor*"

M.Sc. Computer Science & Automatic Control, Faculty of Engineering, Alexandria University, 1984
Thesis: "*Computer Networks Design*"

Ph.D. Electronics & Communication, Co-Supervised by Cairo University, and Imperial College of Science & Technology, University of London, U.K., 1988.
Thesis: "*Development of a Computer-Based Decision Support System for Air Pollution Control*"

Employment

+ *Teaching Assistant:* Institute of Graduate Studies & Research (IGSR), Alexandria University. (1981-1984)
+ *Assistant Lecturer:* Institute of Graduate Studies & Research (IGSR),

Alexandria University. (1984-1988)

+ *Academic Visitor:* **Imperial College of Science & Technology, University of London, (Nov. 1985 – Dec 1987) conducting Ph.D. research.**
+ *Assistant Professor:* **Institute of Graduate Studies & Research (IGSR), Alexandria University. (1988-1996)**
+ *Associate Professor:* **Institute of Graduate Studies & Research (IGSR), Alexandria University. (1996-Jan 2006)**
+ *Acting head,* **Department of Information Technology, Institute of Graduate Studies & Research (IGSR), Alexandria University. (Dec 2002-Jan 2006)**
+ *Quality Assurance Manager:* **EIMP/AIR component run by EEAA, Egypt (Since 1998)**
+ *Associate Professor:* **Faculty of Computer Engineering and Information Technology, Al-Hussein Bin Talal University, Jordan (Feb. 2006-June 2007)**
+ *Professor* **of Computer Science & Informatics, Information Technology Dept., Institute of Graduate Studies & Research (IGSR), Alexandria University (Since Dec. 2006)**
+ *Head,* **Information Technology Dept., Institute of Graduate Studies & Research (IGSR), Alexandria University (Aug. 2008 – July 2012)**
+ *Executive Director,* **IGSR Special Unit, 2013/2014.**
+ *Internal Auditors Team Leader,* **IGSR Quality Assurance Unit, 2014.**
+ *Vice Dean for Graduate Studies & Research,* **IGSR, Aug. 2015 - current.**

Experience

+ **Participated in teaching computer science courses and supervising graduate projects for successive years in the Arab Academy for Science and Technology and Maritime Transport (1990 – current).**
+ **Participated in teaching computer engineering courses in Alexandria Institute of Technology (AIET) (2003 – 2010).**
+ **Participated as a referee committee member in a number of M.Sc. and Ph.D. theses.**
+ **Participated in developing two lab accreditation projects (Air lab and Water Lab) as well as the CIQAP project.**

Patent

"Magic21: Management, Accounting, Global control, Investment and Construction for the 21st century", **United States Copyright office [TX-6-092-286], 2004.**

Scientific and Technical Membership

- **Promotion committee for Associate professors, Al-Hussein Bin Talal University, Jordan, 2011**
- **Promotion committee for Associate professors, Al-Tafila Technical University, Jordan, 2012**
- **Promotion committee for Associate professors, Mu'tah University, Jordan, 2012**

- Reviewer, International Journal of Remote Sensing, Taylor & Francis, UK.
- Reviewer, International Journal of Computer Applications in Technology.
- Reviewer, Alexandria Engineering Journal, AEJ
- Editorial Board Member, International Journal of Software Reuse
- Scientific Committee member, The 3rd International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN) Amman, Jordan, October 10-13, 2011 www.iasks.org/conferences/EUSPN2011
- Scientific Committee member, Workshop on ICT in our lives, How can information and communications technologies improve the life of citizens? December 17th–18th, 2011, Faculty of Commerce, Alexandria University.
- Scientific Committee member, Second International Conference on ICT in our lives - How can information and communications technologies improve the life of citizens? December 15th–17th, 2012, Faculty of Commerce, Alexandria University.
- A member in the Egyptian society for Remote Sensing.
- A member in the European Association for the Science of Air Pollution (EURASAP).
- A member in the Arab Society of Material Sciences.
- A member in the Engineers Syndicate of Egypt.

Publications

1. El-Derini M.N. and Guirguis S.K., "A heuristic method for the design of communication networks", The Bulletin of the Faculty of Engineering, Alexandria University, Vol. XXIII, pp. 149-163, 1984.
2. El-Derini M.N. and Guirguis S.K., "A technique for the evaluation of local area networks", The Bulletin of the Faculty of Engineering, Alexandria University, Vol. XXIII, pp 63-80, 1984.
3. El-Derini M.N. and Guirguis S.K., "A procedure to connect the Egyptian Governerates through a computer network", Proceedings of MELECON'85, IEEE 85, pp 591-594, Oct. 1985.
4. ApSimon H.M., Wilson J.J., Guirguis S.K. and Stott P., "Assessment of the Chernobyl release in the immediate aftermath", Nucl. Energy, 1987, 26, No. 5, Oct., 295-301.
5. ApSimon H.M., Hassan M.F., Guirguis S.K. and El-Raey M.E., "Application of the Combined Chemistry and Transport Model (CCTM) to Chernobyl-4 reactor accident", Symp. Environ. Sci. (UNARC), Alexandria (1988), pp. 255-274.
6. El-Raey M., Naim M., Guirguis S.K., Balba M., Ghattas Z. and Zahran A.,"Monitoring and analysis of some air pollutants over Alexandria, Egypt south of the Mediterranean: Meeting on Geophysics and Environment: Background Air pollution", University of Rome, Italy, June 1992.
7. El-Raey M.E., Naim M.A., Ghatass Z. and Guirguis S.K., "Spectrometric and temporal analysis of radioactive fallout over Alexandria, Proceedings of the Fourth National Physics Conference, Academy of Scientific Research and Technology, Cairo, 28-30 November 1992, pp. 11-23.

8. **Guirguis S.K.**, El-Raey M.E., Korany E. and Yehia S, ”Practicing implementation of a large software system”, Proceedings of Software Quality Management 93, (SQM93) 30 March -1 April 1993, Southampton, UK, pp. 361-373.

9. **Guirguis S.K.** "Data acquisition tutor and programming interface”, Computer Applications in Engineering Education, Vol. 2, No. 4, 1994, pp. 41-47.

10. **Guirguis S.K.** and El-Rafey E., ”An integrated system for performance studies of solar water heaters”, Alexandria Engineering Journal, Vol. 34, No. 3, July 1995, pp. B49-B55.

11. **Guirguis S.K.**, ”A framework for improving software reusability within quality constraints”, MEJ Vol. 20, No. 4, December 1995, pp. E24-E47.

12. **Guirguis S.K.**, El-Raey M.E. and Aly E.M., ”Quantitative inference of decision making strategies under inherent knowledge uncertainties”, MEJ Vol. 20, No. 4, December 1995, pp. E48-E60.

13. **Guirguis S.K.**, Korany E. and Abdel-Bary A., ”Development and application of MCAL tools for marine radar instruction”, Computer Applications in Engineering Education, Vol. 3, No. 4, 1995, pp. 259-264.

14. **Guirguis S.K.**, Hassan H.M., El-Raey M.E. and Hussain M.A. "Multitemporal change of lake Brullus, Egypt, from 1983 to 1991”, Int. J. Remote Sensing, Vol. 17, No. 15, 2915-2921, 1996.

15. Abdel-Hafez H.A., Korany E.A. and **Guirguis S.K.**, "Decision Support System for Management Control”, Proceedings of the 5th International Conference on Artificial Intelligence Applications (ICAIA), 27 Feb. – 3 March, 1997, Cairo, Egypt, pp 396-408.

16. Zada F. and **Guirguis S.K.**, ”Multimedia Modeling of Autonomous Mobile Robots”, SPIE Vol. 3209, pp315-328, 1997, Pittsburgh, PA, USA.

17. **Guirguis S.K.**, "Utilization of Hamming neural nets to Enhance the Performance of a General DSS Model”, Proceedings of the 8th International Conference on Computer Theory and Applications, VII-16, 15-17 September 1998, Alexandria, Egypt.

18. Shalaby S.M., **Guirguis S.K.**, El-Gayar O.F., "Potential Impacts and Solutions to Y2K Problem”, Proceedings of the 8th International Conference on Computer Theory and Applications, VII-22, 15-17 September 1998, Alexandria, Egypt.

19. **Guirguis S.K.**, "Automatic Quality Control and Information Extraction of Continuously Acquired Environmental Data”, Proceedings of the International Conference on Environmental Management, Health and Sustainable Development, 22-25 March, 1999, Alexandria, Egypt, pp. 557-570.

20. **Guirguis S.K.**, Amin M., Baghdadi H., El-Sharkawy A. And El-Raey M., "Modeling and Assessment of Industrial Air Pollution Over Alexandria”, Proceedings of the International Conference on Environmental Management, and Sustainable Development, 22-25 March, 1999, Alexandria, Egypt, pp. 585-602.

21. El-Raey M.E., Sivertsen B., Shalaby E.A., **Guirguis S.K.**, Ghatass Z.F. and Uqba M.A. "An Air Pollution Monitoring Network for Alexandria and Nile Delta Region, Egypt”, Proceedings of the International Conference on Environmental Management, Health and Sustainable Development, 22-25 March, 1999, Alexandria, Egypt., pp. 670-677.

22. **Abdel-Hafez H.A., <u>Guirguis S.K.</u>, El-Sawafiry F.R., "Decision Support System for Activity Based Budgeting in Manufacturing Companies", 11th International Conference on Artificial Intelligence Applications, 5-8 Feb. 2002, Cairo, Egypt, pp. 399-410.**

23. **Mamish S., <u>Guirguis S.K.</u>, El-Zoghabi A. and Emam A., "Modeling a Computer Assisted Interview to Acquire Knowledge", Knowledge Management in the Era of Globalization, Proceedings of the 10th Scientific Conference for Information Systems and Computer Technology, 18-20 February 2003, pp. 138-148.**

24. **Mamish S., <u>Guirguis S.K.</u>, El-Zoghabi A. and Emam A., "An Automatically Generated Computer-Assisted Question-Answer System to Acquire Knowledge", New Directions in Question Answering, AAAI, SS-03-07, 24-26 March 2003, Stanford University, Palo Alto, California, pp. 62-66.**

25. **Mamish S., <u>Guirguis S.K.</u>, El-Zoghabi A. and Emam A.,"Applying a Smart Computer Question-Answer System to Acquire Knowledge", The 8th World Multi-conference on Systemics, Cybernitics and Informatics, July 18-21, 2004 Orlando, Florida, USA.**

26. **Ahmed T.F., <u>Guirguis S.K.</u> and Shawky A. "An Expert System for Product Management, Case study: Pharmaceutical companies in Egypt", The 2nd International Conference on Advances in Engineering Sciences & Technologies, 12-14 Nov. 2005, NIR, Egypt.**

27. **Gaafar A., Shalaby E.A., Bahnassy M., <u>Guirguis S.K.</u> and Abdella M., "A Geographic Information-Based Decision Support System for Sustainable Land Use Assessment in Irrigated Areas", J. Agric. Sci Mansoura Univ, 30 (6): 3491 –3512, 2005.**

28. **Abdelaziz A.R., <u>Guirguis S.K.</u>, El-Kaffas S.M. and Fares A.T.,"A Genetic Programming-based Classification Rule Induction for Data Mining", Faculty of Commerce Journal of Research, Vol. 42, No. 2, Sept. 2005**

29. **Mabrouk T.F., <u>Guirguis S.K.</u> and Shawky A.Y., "A Survey on Multi Agent Role-Based Systems", The 40th Annual Conference of ISSR, 3-6 December 2005.**

30. **Saad S.M., <u>Guirguis S.K.</u> and Emam A.M., "An Efficient Contour Based Shape Descriptor for Representation and Classification of Medical Images", MEJ Vol.31 No.1, March 2006 (E.9-E.16).**

31. **Saad M.S., <u>Guirguis S.K.</u> and Emam A.M., "An approach based on lifting wavelet salient points for content-based image description", Alexandria Engineering Journal, Vol. 45, No. 1, January 2006, pp 93-101.**

32. **Gaafar A., <u>Guirguis S.K.</u>, Bahnassy M., Shalaby E. and Abdella M., "Design, Implementation and Application of an Integrated Intelligent Decision Support System", Proceedings of the International Conference on the Role of Computer and its Effect on Development, RCED'5, 3-5 July 2006, Ma'an, Jordan, pp-231-249.**

33. **Gaafar A., <u>Guirguis S.K.</u>, Bahnassy M., Shalaby E. and Abdella M., "An Integrated Intelligent Geographic Information-Based Decision Support System", Alexandria Engineering Journal, Vol. 45 (2006) No. 3, pp. 331-348.**

34. **Amer A.A., Abou Zeid K.K. and <u>Guirguis S.K.</u>, "Using an Expert System to Build a System for Managing Product Quality Costs", Journal of Commercial and Managerial Studies, Vol. 2, No. 4, 2006.**

35. **Mabrouk T.F., Sharbini M.M., <u>Guirguis S.K.</u>, Shawky A.Y., "Multi-Agent Systems Programming Languages and Development Tools", The 41st Annual Conference of ISSR, 3-6 December 2006.**

36. **El-Raey M., Shalaby E., <u>Guirguis S.K.</u>, Ghatass Z., Said H., Zahran A., Rashad M. and Sivertsen B., "Ambient Air Pollution Monitoring Network Over Alexandria City and the Nile Delta, Egypt", Proceedings of the 2nd Environmental Physics Conference, 18-22 Feb. 2006, Alexandria, Egypt.**

37. **Ahmed T.,El-sherbiny M., <u>Guirguis S.K.</u> and Shawky A., "A Multi-Agent Role-Based System for Business Intelligence", IEEE International Joint Conferences on Computer, Information, and Systems Sciences and Engineering, CISSE, 5-12 Dec. 2008,**

38. **<u>Guirguis S.K.</u>, Nour H.A. and Abdel-Haleem A.R., "Building live virtual classroom system using software agents and IP-Multicast", MEJ Vol. 34, No. 1, March 2009, pp. E14-E21.**

39. **<u>Guirguis S.K.</u> and Hassan M.A., " A smart framework for web content and resources adaptation in mobile devices", IEEE - The 12th International Conference on Advanced Communication Technology (ICACT), pp. 487 – 492, Phoenix Park, Korea, Feb. 7-10, 2010, IEEE Catalog Number CFP10561-PRT, ISSN 1738-9445, ISBN 978-89-5519-145-5**

40. **Mabrouk T.F., El-Sherbiny M.M. , <u>Guirguis S.K.</u> and Shawky A.Y., "A Multi-Agent Role-Based System for Business Intelligence", Innovations and Advances in Computer Sciences and Engineering, SpringerLink, ISBN 978-90-481-3657-5(print)/978-90-481-3658-2(online), March 2010, pp. 203-208**

41. **Mabrouk T.F. and <u>Guirguis S.K.</u>, "Multi-Agent Systems Verification and Validation, Journal of Communication and Computer", Volume 7, No.8 (Serial No.69), August 2010, ISSN 1548-7709, USA**

42. **Darwish S.M., <u>Guirguis S.K.</u>, and Zalat M.S., Stealthy Code Obfuscation Technique for Software Security, ICCES'2010, International Conference on Computer Engineering and Systems, 2010.**

43. **Zada F., <u>Guirguis S.K.</u> and Sead W.M., Hybrid Neural-Fuzzy Controller for Motorized Robot Arm, IEEE International Conference on Control, Robotics and Cybernetics (ICCRC), V2-427:V2-431, 19 to 21 March 2011, New Delhi, India.**

44. **Zada F., <u>Guirguis S.K.</u> and Sead W.M., Hybrid Neural Predictive-Fuzzy Controller for Motorized Robot Arm, International Conference on Intelligent Control and Information Technology (ICICIT) , Tianjin, China, March 25-27, 2011.**

45. **El-Zanaty M., Saeb M., Baith M., <u>Guirguis S.K.</u>, Haar Wavelet Transform of The Signal Representation of DNA Sequences, International Journal of Computer Science and Communication Security (IJCSCS) Volume 1, July 2011.**

46. **Saada A.I., El Khayat G.A., <u>Guirguis S.K.</u>, Cloud Computing Based ETL Technique Using Warehouse Intermediate Agents, 7th IEEE International Conference on Computer Engineering and Systems (ICCES'2011), Cairo, Egypt, November 29-30, 2011.**

47. **Zada F., <u>Guirguis S.K.</u> and Sead W.M., Hybrid Neural -Fuzzy Controller for Motorized Robot Arm, Advanced Materials Research Vols. 403-408 (2012) pp 5068-5075, Trans Tech Publications, Switzerland.**

48. **Zada F., <u>Guirguis S.K.</u> and Sedky A.H., Development of a Dynamic Model for Data-Driven DSS, Journal of Emerging Trends in Computing and**

Information Sciences, Vol. 3, No. 2, ISSN 2079-8407, February, 2012, pp. 255-261.

49. El-Zanaty M, Saeb M, A. Baith M, <u>Guirguis S.K.</u>, El-Abd E, Virus Classifications Based on the Haar Wavelet Transform of Signal Representation of DNA Sequences, The International Journal of Computer Science and Communication Security (IJCSCS) Volume 2, February 2012, pp. 51-58.

50. <u>Guirguis S.K.</u> and Othman Y.A., Simulation analysis of secure routing in Mobile Ad hoc networks, International Journal of Advanced Research in Computer and Communication Engineering Vol. 1, Issue 9, November 2012, ISSN : 2278 – 1021

51. Abdel-Hamid M., El-Sayed M. and <u>Guirguis S.K.</u>, Profiling in Adaptive e-learning, Second International Conference on ICT in our lives - 22-24 Dec. 2012, Faculty of Commerce, Alexandria University, Egypt.

52. <u>Guirguis S.K.</u> and Saaid O.S., Evaluating the performance of secure routing, protocols in Mobile Ad-hoc Networks, International Journal of Advanced Research in Computer and Communication Engineering Vol. 1, Issue 9, November 2012

53. AlTukhy O., El-Sayed M. and <u>Guirguis S.K.</u>, Text Summarization: a Semantic Approach, Second International Conference on ICT in our lives - 22-24 Dec. 2012, Faculty of Commerce, Alexandria University, Egypt.

54. Mahmoud M.M., <u>Guirguis S.K.</u> and Abo Rizka M., A Novel Approach for Identifying Sensitive Association Rules for Privacy Preserving Data Mining, International Journal of Intelligent Computing and Information Science, IJICIS, Vol.13, No. 2 APRIL 2013, pp 65-77.

55. <u>Guirguis S.K.</u>, Zada F. and Khattab T., Using Control Charts as a TQM tool, The 1st International Conference on New Directions in Business, Management, Finance and Economics, Sept 12-14, 2013.

56. Darwish S.M., <u>Guirguis S.K.</u> and Alatafy W., An Enhanced Steganographic System for Data Hiding in True Color Images, The Second International Conference on Informatics Engineering & Information Science (ICIEIS2013), Nov. 2013, pp. 75-83.

57. <u>S.K. Guirguis</u>, F. Zada and T. Khattab, Quality Controlled Stock Prediction Model, 23rd International Conference on Computer Theory and Applications, (ICCTA 2013) October 29-31, 2013.

58. <u>S.K. Guirguis</u>, F. Zada and T. Khattab, Optimization of CBR Model to Predict Stock Prices in A Highly Volatile Egyptian Stock Exchange, submitted for publication in the 9th International Conference on Artificial Intelligence Applications & Innovations, AIAI 2013.

59. Intrusion Detection in Role Administrated Database: Transaction- Based Approach, Darwish S.M., <u>Guirguis S.K.</u> and Ghozlan M., Submitted for publication.

60. S.M. Darwish, <u>S.K. Guirguis</u>, M.Ghozlan, Intrusion detection in role administrated database: Transaction-based approach, IEEE 8th International Conference on Computer Engineering & Systems (ICCES), 2013, pp. 73 – 79.

61. M.M. Isamil, <u>S.K. Guirguis</u> , Rizka M.M., An Innovative Approach for Privacy Preserving the Identified Sensitive Rules, Ciit, Data Mining and Knowledge Engineering, Vol 6, No 1, January (2014).

62. S.A. Dabibbi and <u>S.K. Guirguis</u>, Implementation and Performance Evaluation of Three Routing Protocols for Mobile Ad Hoc Networks, 3rd International

Conference on Software and Information Engineering, ICSIE 2014, May 1-2, 2014 Singapore.

63. A. Najim, S.K. Guirguis and M. Madbouly, Cloud Computing and Offloading Framework for Enhancing Android Smart Device Battery Life, Transactions on Networks and Communications, Vol. 2, No 3, pp. 18-33, June (2014)

64. S.M. Darwish, A.A. Ali and S.K. Guirguis, An Approach for Improving Performance of a Packet Filtering Firewall Based on Fuzzy Petri Net, Journal of Advances in Computer Networks (JACN) Vol. 3, No.1, March 2015 , ISSN:1793-8244, International Association of Computer Science and Information Technology (IACSIT), Singapore.

65. S.K. Guirguis, A.A. El-Zoghabi, M.A. Hassan, A Lightweight Access for Hybrid Mobile Web Cloud Content Architecture, International Journal of Computer Science and Mobile Computing (IJCSMC), Volume 3 Issue 8, August 2014.

66. A.A. Qader, S.K. Guirguis, M.M. Madbouly, Creating a model for cloud banking services DSS, International Scholarly Research Journal, July-Aug, 2014, Vol-II/XIII, pp. 1793-1798

67. A. Elshobaky , G. Elkabbany, M. Rasslan and S.K. Guirguis, Implementation, Comparison, and Enhancement of Secure Communication Designs, The Sixth International Symposium on Applications of Ad hoc and Sensor Networks (AASNET'14), Halifax, Nova Scotia, Canada, September 22-25, 2014, pp. 363-369, 2014.

68. M.A. Aljbori, S.K. Guirguis, M.M. Madbouly, Adaptable mobile user interface for securing e-learning environment, Transactions on Networks and Communications, Volume 2, Issue 4, ISSN: 2054 – 7420, 2014.

69. H. Hussein, M. Elmogy and S.K. Guirguis, Automatic English Question Generation System Based on Template Driven Scheme, IJCSI International Journal of Computer Science Issues, Volume 11, Issue 6, No 1, November 2014, pp. 45-53.

70. S.A. Dabibbi and S.K. Guirguis, Implementation and Performance Evaluation of Three Routing Protocols for Mobile Ad Hoc Network Using Network Simulator, Lecture Notes on Software Engineering, Vol. 3, No. 1, February 2015.

71. W. F. Aswad, S.K. Guirguis and M. Z. Rashad, Investigation of Efficiency of using Minutiae Detection Method for Finger Vein Recognition and Matching, International Journal of Computer Applications (IJCA) March 2015.

72. A. Sh. Ahmed, S.K. Guirguis and M. Z. Rashad, Enhancing 3D Face Recognition based PCA by using Rough Set Theory, International Journal of Computer Applications (IJCA) March 2015.

73. A.A. Almafrji, S.K. Guirguis, M.M. Madbouly, Applying Fuzzy cluster index to improve searching in data warehouse, Transactions on Networks and Communications, Volume 3, Issue 2, April 2015.

74. M.A.Hamied, M.F. Elsayed and S.K. Guirguis, An Adaptive E-Learning Framework Supporting The Cognitive Ability Of Learners, International Journal of Arts and Sciences'conference, Harvard campus, 26 to 30 May 2015

75. M.F. Elsayed, S.K. Guirguis and O.A. Altukhy, Automated Essay Grading: A Semantic Approach, International Journal of Arts and Sciences'conference, Harvard campus, 26 to 30 May 2015

76. K.O. Khorsheed, M.M. Madbouly, S.K. Guirguis, Search Engine Optimization Using Data Mining Approach, International Journal of

Computer Engineering and Applications, IJCEA, Volume IX, Issue VI, Part I, June 2015.

77. A.A. Ahmed, <u>S.K. Guirguis</u>, M.M. Madbouly, Energy Evolution Model for AES and RSA Algorithms, International Journal of Engineering & Science Research, IJESR, Vol 5, July 2015.

78. A.A. Abdulhussein, L.F. Flieh, M.M. Madbouly, <u>S.K. Guirguis</u>, Enhancing Neural Network Learning to Classify Web Page, International Journal of Engineering & Science Research, IJESR, Vol 5, July 2015.

79. A.Elshobaky, M.Rasslan and <u>S.K. Guirguis</u>, Implementation of Schnorr Signcryption Algorithim on DSP, Submitted for publication in KSII Transactions on Internet and Information Systems.

80. Saada A., Elkhayat G. and <u>Guirguis S.K.</u>, Comparing Enterprise Data Integration solutions, Submitted for publication.

81. Saada A., Elkhayat G. and <u>Guirguis S.K.</u>, Optimizing the Extraction Process in ETL Technique, Submitted for publication.

Technical Reports

- As a "Quality Assurance Manager" for IGSR air lab, I have developed a series of yearly quality assurance guides for EIMP/AIR component run by EEAA, Alexandria, Egypt and for the Air Lab accreditation project according to ISO17025: (Since 1998) covering:
  1. Strategic and Tactical Level Procedures
  2. Operational Level Procedures

Supervised theses

- Supervised 13 offered Ph.D. degrees, 36 M.Sc. and more than 85 Higher Diploma projects.

Invited Speaker

- Invited speaker in the "First Regional Workshop on Multimedia in Engineering Education", Sponsored by UNESCO and EEDP, Cairo 27-29 May 1995.
- Seminar on "Information Technology", Faculty of Agriculture, Alexandria University, 7 Oct. 1997.

Conference participation

- Software Quality Management (SQM93), Southampton, U.K., 30 March-1 April 1993.
- 8th International Conference on Computer Theory and Applications, Alexandria, Egypt, 15-17 September 1998.
- International Conference on Environmental Management, Health and Sustainable Development, Alexandria, Egypt, 22-25 March 1999.
- The International Conference on the Role of Computer and its Effects on Development, RCED'5, Ma'an, Jordan, 3-5 July, 2006.
- Session Chair, 20th International Conference on Computer Theory and Applications, ICCTA 2010, 23-25 October 2010 Alexandria, Egypt.
- Session Chair, 22nd International Conference on Computer Theory and Applications, ICCTA 2012, 13-15 October 2012, Alexandria, Egypt.
- Session Chair, 23rd International Conference on Computer Theory and Applications, ICCTA 2013, 29-31 October 2013, Alexandria, Egypt.

- Session Chair, Third International Conference on ICT in our lives, Faculty of Commerce, Alexandria University Alexandria, Egypt, December 21st - 23rd, 2013
- Session Chair, Fourth International Conference on ICT in our lives, Faculty of Commerce, Alexandria University Alexandria, Egypt, December 20th – 22nd, 2014

Acknowledged in the following research work

- Preliminary analysis of dispersion of the Chernobyl release, ApSimon H.M. and Wilson .J.N., paper given at the Nuclear Inspectorate on 20th May, 1986.
- Building Fenestration 'Daylighting', Ph.D. thesis by Nagwa Ahmed Zaki, Faculty of Engineering, Alexandria University, 1986.
- Analysis of the Dispersal and Deposition of Radionuclides from Chernobyl Across Europe, Helen M. ApSimon, J. J. N. Wilson, K. L. Simms Proceedings of the Royal Society of London. Series A, Mathematical and Physical Sciences, Vol. 425, No. 1869 (Oct. 9, 1989), pp. 365-405
- Flammability of Egyptian pure cotton, M.Sc. of Material Sciences, by Manal M. Abdel-Latif, Alexandria University 1991.
- Remote Sensing of Environmental Patterns using AVHRR Data, Ph.D. thesis, By Saleh M. El-Kaffas, Department of Environmental Studies, Institute of Graduate Studies & Research, Alexandria University, 1993.
- Determination of Nickel, Vanadium and Iron in Crude Oil by Three-Phase Plasma Arc Spectrometry, By Zekry F. Ghatass, Spectral Line Shapes: Volume 12, 16th ICSLS, 2002, pp 434-441.
- Design and Investigation of an Internet-Based Medical Information System, M.Sc. thesis by Hesham
- Abdel-Hamid, Department of Information Technology, Institute of Graduate Studies & Research, Alexandria University, 2002.
- A GIS-Based Intelligent Decision Support System for the Development of SIWA Oasis, Ph.D. thesis, by Massoud Abd-Elaty Massoud Aly, Dept. of Information Technology, Institute of Graduate Studies & Research, Alexandria University, 2005.

Construction work in (IGSR) Alexandria University

- Participated in the development of:
  1. Air Pollution Lab.,
  2. Programming of a computer-controlled weather station
  3. Radiation Measurement Lab., and
  4. Remote Sensing Lab.
  5. Programming of a computer-controlled weather satellite receiver system (Meteo-sat)
  6. Establishment of the ENSTINET at IGSR
  7. Participated in the establishment of the air pollution monitoring network in Alexandria and Delta regions (14 stations) and designed/developed the Quality assurance system for the EIMP project run for EEAA since 1998 according to ISO 17025.
- Developed systems for managing
  1. the database and statistical analysis system for staff self-evaluation, and

2. database of seminars in IGSR
- Participated in and supervised the development of IGSR web site (www.igsr.edu.eg)
- Participated in upgrading the study curricula and system at IGSR to the credit hour system
- Participated in the CIQAP project for IGSR accreditation since 2010.
- Developed the IT department infrastructure during the period from August 2008 till July 2012.
- Member of IGSR Awards Nomination committee, 2013/2014.

Construction work in Al-Hussein Bin Talal University

Participated in the development of the Computer Maintenance Lab. in the Faculty of Computer Engineering & Information Technology.

Community Service

- Referee for Intel sponsored Exhibition for Science and Engineering held at Center of Technological Development, Alexandria, Egypt.

Instructed the following courses

1	Automated Information Systems & Services	10	Advanced Programming
2	File Processing	11	Environmental database
3	Data Structure	12	Environmental Systems
4	Computer Networks (I)	13	Operations Research
5	Computer Networks (II)	14	Environmental Statistics
6	Networks & Information Security	15	Energy Modeling
7	Computer and Telecommunication systems	16	Compiler Design
8	Systems Analysis and Design	17	Artificial Intelligence
9	Programming Languages (V.Basic,C++,SQL,Oracle..etc.)		

Conference Organization Experience

Participated in organizing the following conferences:
- "Review Seminar on Pollutants from Motor Vehicles and their effects", organized by the European Association for the Science of Air Pollution (EURASAP) in conjunction with the Transport and Road Research Laboratory (TRRL), 16-17 October, 1986, Crowthorne, Berkshire, U.K.
- "First Symposium on Environmental Sciences", Organized by Institute of Graduate Studies & Research, Alexandria University, in co-operation with UNESCO Regional Office for Sciences and Technology for the Arab States and Goethe' Institute of Alexandria, April 6-7,1988, Alexandria, Egypt.
- "Regional Symposium on Environmental Studies", organized by Institute of Graduate Studies & Research, Alexandria University, in co-operation with UNESCO and Goethe' Institute of Alexandria, May 15-17,1990, Alexandria, Egypt.

- **"First Anglo-Egyptian conference on Bioscience and Technology",** organized by Institute of Graduate Studies and Research in conjunction with the British Council, November 10-15, 1990, Alexandria, Egypt.
- **"International Conference on Environmental Management, Health and Sustainable Development", 22-25 March, 1999, Alexandria, Egypt.**
- **"The International Conference on the Role of Computer and its Effects on Development", RCED'5, Ma'an, Jordan, 3-5 July, 2006.**
- **"The International Conference on the Role of Computer and its Effects on Development", RCED'8, Ma'an, Jordan, 2008.**

Conducted and participated in organizing the following post-experience courses

1. **Introduction to databases (July 1989)**
2. **Database programming (August 1989)**
3. **Remote sensing and GIS (11-15 August 1991)**
4. **Computer applications for management and analysis of environmental data (20-25 June 1992)**
5. **Remote Sensing Technology and GIS (26-29 April 1993)**
6. **Air pollution: Principals, sources, monitoring & control (13-17 June 1993)**
7. **Introduction to Foxpro 2.0 database (June 1993)**
8. **Database programming for Foxpro 2.0 (July 1993)**
9. **Remote sensing technology (30 May-2 June 1994)**
10. **Air pollution: Principals, sources, monitoring & control (23-28 December 1994)**
11. **Air pollution (22 April – 5 May 1995)**
12. **Statistical analysis of environmental data (16-18 May 1995)**
13. **Remote sensing technology (14-17 August 1995)**
14. **GIS and their applications(21-24 August 1995)**
15. **Air pollution (9-14 September 1995)**
16. **Air pollution (2-7 March 1996)**
17. **Environmental management : Procedures, Objectives and Applications (16-21 March 1996)**
18. **Year 2K problem solving (1999)**
19. **Automated Management and Accounting Systems (20-22 November 1999)**
20. **Air pollution modeling (1998, 1999, 2000, 2001)**
21. **Software Engineering (6-7 March 2002)**
22. **Modern Systems Analysis & Design (9-10 July 2002)**
23. **Bio-informatics (Feb 2004)**
24. **Automating Management and Accounting Systems (5-7 September 2004)**
25. **Quality Assurance (22-24 January 2011)**
26. **Document Control and Quality Manual Review (4 February 2013)**
27. **ISO17025 Awareness (11 May 2015)**

Participation in projects development and running

- **Participated in "Process Development for the Utilization of the Steel-Slag at the Egyptian Copper Company in the Construction Industry" (1994).**

- Acted as a "Quality Assurance Manager" for the project run by IGSR and the Egyptian Environmental Affairs Agency (EEAA): "Environmental Information and Monitoring Program (EIMP)" since 1998 till 2010.
- Acted as a "Quality Assurance Manager" for IGSR Air Lab Accreditation project provided by "Higher Education Institutes Labs Certification Project", LP2-008-ALEX, since Dec. 2009 till May 2012.
  - Acted as a "Quality Assurance Manager" for IGSR-Inductively Coupled Plasma Atomic Emission Spectrometry Laboratory (ICP-AES Lab) Accreditation project provided by "Higher Education Institutes Labs Certification Project", LP9-013-ALEX, since April 2015 till current.

Special Training

- Attended a course in "Scientific Instrumentation and Fundamentals of Spectroscopy", organized by University of Alexandria Research Center (UNARC) in co-operation with Bristol Polytechnic of the United Kingdom, 12-31 March, 1983.
- Spent two years (Nov. 1985 – Dec. 1987) as an Academic Visitor to Imperial College of Science & Technology, London University, conducting a research leading to the Ph.D. degree.
- Attended the Post-Graduate Summer School on "Remote Sensing Applications in Meteorology & Climatology", Sponsored by NATO, University of Dundee, Scotland, 17 Aug.- 6 Sept., 1986.
- Participated in and completed the "College on Atmospheric Boundary Layer Physics:
    Part I : Modeling of the Atmospheric Flow Fields
    Part II: Air Pollution Modeling for Environmental Impact Assessment",
    Held at the International Centre for Theoretical Physics (ICTP), Trieste, Italy, 21 May-l5 June, 1990.
- Attended a workshop on "knowledge Base Training", held at EP3 Office, Alexandria, 14 December 1997.
- Attended special courses on Quality Assurance for the EIMP project held at NIS and EEAA, 1999 and 2000.
- Completed a training course conducted by EIMP on "Internal Auditor Training", 19-23 September 1999.
- Attended the workshop on "Emission Control Measurement", held at IGSR, 27-31 May 2000.
- Attended workshops titled "Faculty and Leadership Development Project (FLDP)", held in Alexandria University:
    1. Budgeting Aspects in Universities: 25-28 September 2004
    2. Driving Force for Workgroups: 2-5 April 2005
    3. Legal Aspects in Universities: 14-16 April 2005
    4. Developing Management Competencies, 2-5 June 2005
    5. Decision Making and Problem Solving, 24-27 July, 2005
    6. New Trends in Teaching, 30 July – 2 August, 2005
- Completed a workshop on Accreditation Requirements, 20 March 2010
- Completed a workshop on Financial Projects Management, 24 April 2010
- Completed a workshop on Academic Standards, 1-3 May 2010

- Completed a workshop on Skills of Management and Leadership, 27 Sept. 2010.
- Completed a workshop on Crisis Management, 9 Nov. 2010.
- Completed a workshop on Quality Assurance, 22-24 Jan. 2011.
- Completed a workshop on Quality Assurance, 16 Feb. 2011.
- Completed a workshop on Quality Assurance, 19 Feb. 2011.
- Completed a workshop on Uncertainty in chemical analysis, 26-27 Feb. 2011.
- Completed a workshop on Document Management System, 14 Dec. 2011.
- Completed a workshop on Building Strategic Partnership, Aug. 9th, 2015.

Administrative & Professional Activities

- **Vice Dean for Graduate Studies & Research, Institute of Graduate Studies & Research, Alexandria University, August 2015 – current.**
- **Head, Information Technology Department, Institute of Graduate Studies & Research, Alexandria University,**
  Dec. 2002 - Feb. 2006 and
  Aug. 2008 - July 2012.
- **Diploma of Energy Conservation Students' Advisor, IGSR, for 1988-89, 1989-90, 1992-93 and 1993-94 academic years.**
- **Member in the administrative committee of Information technology Department, IGSR, 1989-90, 1994-95, 1995-96.**
- **Member in the administrative committee of Environmental Studies Department, IGSR, since 1989-2002**
- **Member in the administrative committee of IGSR**
- **IGSR Library coordinator, 2008-2009**
- **Member in the administrative committee of Computer Engineering Dept., Faculty of Computer Engineering and Information Technology, Al-Hussein Bin Talal University, Jordan, 2006.**
- **Member in the scientific committee in the Faculty of Computer Engineering and Information Technology, Al-Hussein Bin Talal University, Jordan, 2006-2007.**
- **Member in the steering committee of the center of graduate studies & research UNARC, 2007-2008**
- **Member in the steering committee of IGSR and Industry, 2007-2008**
- **Faculty council member Arab Academy for Science, Technology and Maritime Transport, Faculty of computer and information, May 2012 till now.**
- **External reviewer for Quality Assurance Unit of Alexandria Institute for Engineering & Technology, Alexandria, Egypt.**

Supervised the following offered Ph.D. theses

#	Subject	Department	Year
1	Modeling and Assessment of Industrial Air Pollution in Alexandria	Environmental Studies	2000
2	Decision Support System for Activity Based Budgeting in Manufacturing Companies	Information Technology	2002
3	Distribution Modeling of Some Heavy Metals and Soil Properties in an Environmentally Sensitive Area	Environmental Studies	2002
4	Air Pollution Monitoring, Modeling and Distribution over	Environmental	2002

#		Department	
	Urban Areas, Case study: Alexandria, Egypt	Studies	
5	Design, Development and Implementation of an Intelligent Decision Support System using Quality Management Techniques	Information Technology	2004
6	A Geographic Information-Based Decision Support System for Sustainable Land Use in Irrigated Areas	Information Technology	2005
7	An Expert System for Measuring and Managing Product Quality Costs	Information Technology	2005
8	Developing an Image Description Scheme by Utilizing Image Transforms for Pictorial Data Mining	Information Technology	2006
9	A Multi-Agent System for Business Intelligence	Information Technology	2009
10	Improving the Quality of Egyptian Stock Price Prediction using Case-Based Reasoning and Control Charts	Arab Academy for Science, Technology and Maritime Transport	2013
11	A Framework for Privacy Preservation within Data Mining Systems	Information Technology	2014
12	An architecture providing a lightweight for mobile web content access over enterprise cloud model	Information Technology	2015
13	A Smart Model for Firewall Based on Fuzzy Petri Nets	Information Technology	2015

Supervised the following offered M.Sc. theses

#	Subject	Department	Year
1	Information Representation and Retrieval System	Information Technology	1990
2	Climatic considerations for Building Design (School buildings in Egypt)	Environmental Studies	1990
3	Monitoring of Radioactive Air Pollution over Alexandria	Environmental Studies	1992
4	Remote Sensing and Geographic Information Analysis of Climatic Impact over Alexandria	Environmental Studies	1993
5	Decision Support Systems and the Socio-technical Aspects of Information Technology in the Customs Sector	Information Technology	1994
6	Remote Sensing of Some Environmental Conditions at Lake Brullus	Environmental Studies	1994
7	Satellite Studies of Weather Variations Over the Egyptian North Coast	Environmental Studies	1995
8	Computer-Assisted Learning System for Marine Technology Applications	Information Technology	1995
9	Computer-Assisted Data Management System for Weather Information over Alexandria	Information Technology	1995
10	Development and Evaluation of a Network for an Information System	Information Technology	1996
11	An Information System for Maritime Applications	Information Technology	1996
12	Decision Support System for Management Control	Information Technology	1996
13	An Information System for Soil Testing in Newly Reclaimed Desert Areas	Information Technology	1999
14	Enhancing Environmental Education via Information Technology: Potentials, Problems and Needs	Environmental Studies	2003
15	Quality Assurance in Developing an Information System	Information Technology	2004
16	An Expert System for Product Management, case study: Pharmaceutical Companies	Information Technology	2004
7	A Comparative Study of Digital Image Transforms	Information Technology	2005

18	Utilization and Performance Analysis of OLAP Technology for Decision Support	Information Technology	2006
19	Building an Internet-Based Distant Learning System	Information Technology	2010
20	Smart Framework for Web Content and Resources Adaptation in Mobile Devices	Information Technology	2011
21	Enhancing Code Security Using Obfuscation Methodology	Information Technology	2011
22	Hybrid Neural Predictive-Fuzzy Controller for Motorized Robot Arm	Computer Engineering, Arab Academy for Science & Technology	2011
23	Secure Routing Protocols for Mobile Ad hoc Networks	Computer Science, Faculty of Science, Alexandria University	2013
24	Detecting Intruders on Relational Databases	Information Technology	2013
25	Design of Flexible Software System	Information Technology	2013
26	Secure Routing Protocols for Mobile Ad hoc Networks	Information Technology	2014
27	An Enhanced System for Data Hiding in Images	Information Technology	2014
28	Using Cloud Computing services to reduce power consumption in smart devices	Information Technology	2014
29	Adaptable Mobile User Interface for Securing E-learning Environment	Information Technology	2015
30	Applying Fuzzy Logic to Improve Searching In Data Warehouse	Information Technology	2015
31	Finger Vein for Human Identification	Information Technology	2015
32	Person Identification Using 3-D Face Recognition	Information Technology	2015
33	Creating a Model for Cloud Banking Services	Information Technology	2015
34	Smart Question Generator System	Information Technology	2015
35	Evaluation of E-learning program versus Traditional Education instruction for undergraduate	Information Technology	2015
36	Search Engine Optimization Using Data Mining Approach	Information Technology	2015

#	*Supervised Diploma Project in Information Technology*	*Year*
1	**Software Quality Assurance**	**1995**
2	**Development of an Automated Information System for a Postgraduate Library**	**1995**
3	**An Automated System for Handling the Activities of the Institute Library**	**1996**
4	**An Automated Information System for Student Management**	**1996**
5	**An Information System for Chemical Elements Properties**	**1997**
6	**Internet-based Medical Information System**	**1999**
7	**Internet-based Information System of the Research**	**1999**
8	**Design of an Inventory System for the University**	**1999**
9	**Implementation of an Inventory System for the University**	**1999**
10	**Libraries Acquisition System**	**2000**
11	**Woven product Processing Follow up and Analysis System**	**2000**
12	**Design of a Database System for woven products**	**2000**
13	**Information System Analysis for Current Accounts**	**2000**
14	**Information System Design for Current Accounts**	**2000**
15	**Software Quality Testing**	**2000**
16	**Product Management expert System**	**2000**
17	**A Computer Program for Developing Language Skills for Pre-School Children (Testing, Measuring reflects & Reporting)**	**2001**
18	**A Computer Program for Developing Language Skills for Pre-School Children (System Analysis)**	**2001**
19	**A Computer Program for Developing Language Skills for Pre-School Children (System Design & Implementation)**	**2001**
20	**Mobile Applications (Application Servers)**	**2001**
21	**Mobile Applications (System Analysis & Design)**	**2001**
22	**Mobile Applications (Security System)**	**2001**
23	**Mobile Applications (HTML User Interface)**	**2001**
24	**Mobile Applications (Data Security)**	**2001**
25	**Design and Implementation of a Web-Based Database (Analysis & design)**	**2002**
26	**Design and Implementation of a Web-Based Database (Web-developing)**	**2002**
27	**Design and Implementation of a Web-Based Database (security)**	**2002**
28	**Analysis & Design of Pharmacy Information System**	**2002**
29	**Warehouse Management via the Internet**	**2003**
30	**Design of an Information System for Computer Products Marketing on the Internet**	**2003**
31	**Implementation of an Information System for Computer Products Marketing on the Internet**	**2003**
32	**Database to Automate the System in a Factory**	**2003**
33	**Design of a Database for an Educational Institute, Analysis, Design and Implementation**	**2003**
34	**The Role of Data Analysis and Interpretation for Educational Reform**	**2003**
35	**Design of a Dynamic Web Page for an Educational Institute**	**2003**
36	**Design of a System for Manufacturing Process Automation**	**2003**
37	**Implementation of a System for Manufacturing Process Automation**	**2003**
38	**Design of a Database for an Agent Company**	**2003**
39	**Computerized Question-Bank to Measure the Human Ability of Problem Solving**	**2003**
40	**A Database to Automate the System in a Factory**	**2003**
41	**Developing a Web-Based Information System based on Oracle. Case study: Nile Drug Company**	**2003**
42	**Design and Generation of Automatic Reports from Environmental Data**	**2004**
43	**Implementation of Automatic Reports for Environmental Data**	**2004**
44	**Governmental Building Services to Citizens via the Internet**	**2004**
45	**Upgrade of Institute of Graduate Studies & Research Website**	**2004**
46	**Analysis of an Intelligent Website for the Institute of Graduate Studies & Research**	**2005**
47	**Design of an Intelligent Website for the Institute of Graduate Studies & Research**	**2005**
48	**Implementation of an Intelligent Website for the Institute of Graduate Studies & Research**	**2005**

49	Testing of an Intelligent Website for the Institute of Graduate Studies & Research	2005
50	Analyzing and designing of credit hours management system	2005
51	Implementation and testing of credit hours management system	2005
52	A Generic system for Automatic Report Generation for a Database	2005
53	Sequence Alignment "Comparison between different algorithms and design of a software program"	2005
54	Practical Implementation of Enterprise Resource Integration	2009
55	Advanced Information System to Manage the Tenders	2009
56	Smart Framework for Web Content Adaptation in Mobile	2009
57	A Flexible Global Management System	2009
58	Study on Agile Methodology in Software Development	2009
59	A Framework for Enterprise Resource Integration	2009
60	Distributed Network for Ambulance Company	2009
61	Study the possibility in Implementing Broadcast over power line communication in Egypt	2009
62	Content Management System (CMS)	2009
63	Broadcast Communication over Power lines	2009
64	Information Technology & Disaster Recovery Planning	2014

Supervised Diploma Projects in Environmental Studies & Energy Conservation

#	Subject	Year
1	Cost Effective Power Plant Allocation Model	1989
2	Computer Modeling of Energy Conservation in Transportation	1989
3	Simulation of Fault Effects on Energy Consumption Case Study: Chlorine Processing Plant	1990
4	Energy Conservation in Alexandria Petroleum Company	1990
5	A Data Acquisition Hardware System to Study Weather Condition Effects on Solar Power Generation	1990
6	A Software System for Correlating Solar Power Generation with Ambient Temperature	1990
7	A Training, Evaluating and Decision-Supporting Computer System for the Operation Procedures and the Routine Check Item List of Marsa Matruh Power Station	1991
8	Reduction of Losses in Cables	1991
9	Pricing System and its Effects on Energy Conservation in Egypt	1991
10	Utilization of Wind as a Source of Energy Generation	1991
11	Reactive Power Compensation in the Distribution Network	1992
12	Power Factor Improvement in a Paper Converting Company, case study: VERTA	1992
13	Energy and Production Conservation for Plastic Production Machines, case study: VERTA	1992
14	Evaluation of the Thermal Efficiency for U-Type Heat Exchanger and improving its efficiency at Misr Rayon Company	1993
15	Improving the performance of Flat-Plate Solar Water Collectors	1993
16	Energy Conservation in Data Transmission Systems	1993
17	A Study of a Design for a Children's village in Aswan to reassure energy conservation	1993
18	Energy Conservation in Boilers used in Power Plants	1993
19	Energy Conservation in Furnaces	1993
20	Data Compression for Reducing Connection Times in Telecommunications Systems	1994
21	Computer Simulation for Energy Conservation in Transportation in Alexandria	1994
22	Use of Computers to Analyze Risk in Natural Gas Pipes	1994

Thesis Defense Committee Member

Thesis title	Department	Student Name	Degree	Date
1. Decision Support System: The consequences of the application of Building regulations in Egyptian Cities: Case study, Alexandria	Information Technology Department, IGSR	Aida Nayer Mohamed Abu-Rawash	M.Sc.	November 2002
2. Decision Support System for Activity Based Budgeting in Manufacturing Companies	Information Technology Department, IGSR	Hoda Ahmed Abdel-Hafez	Ph.D.	November 2002
3. An Intelligent Knowledge Discovery Approach for Insurance Companies Databases	Information Technology Department, IGSR	Ahmed Sayed Abdel-Hamid Salama	Ph.D.	November 2004
4. Design, Development and Implementation of an Intelligent Decision Support System using Quality Management Techniques	Information Technology Department, IGSR	Itihad Mohamed Abdel-ahaman El-Bahr	Ph.D.	December 2004
5. A GIS-Based Intelligent Decision Support System for the Development of Siwa Oasis	Information Technology Department, IGSR	Masoud Abdel-Aty Masoud	Ph.D.	March 2005
6. A Geographic Information-Based Decision Support System for Sustainable Land Use in Irrigated Areas	Information Technology Department, IGSR	Aly Gaafar	Ph.D.	April 2005
7. An Expert System for Measuring and Managing Product Quality Costs	Information Technology Department, IGSR	Abir Abdel-Hamid Amer	Ph.D.	October 2005
8. Developing an Image Description Scheme by Utilizing Image Transforms for Pictorial Data Mining	Information Technology Department, IGSR	Saad Mohamed Saad	Ph.D.	August 2006
9. Design and Implementation of a tool for automatic database applications development	Information Technology Department, IGSR	Mohamed Aboul-Ela Shalaby	M.Sc.	August 2007
10. A Multi-Agent System for Business Intelligence	Information Technology Department, IGSR	Tamer Fouad	Ph.D.	April 2009
11. A Comparative Study of Image Encryption Techniques	Information Technology Department, IGSR	Marwa Abdel-Wahed	M.Sc.	July 2009
12. Interactive walkthrough in virtual cities and its applications in urban design	Information Technology Department, IGSR	Khaled Abdel-Gawad	M.Sc.	Sept. 2009
13. Developing Interactive Services to Information Flow in the E-Government	Information Technology Department, IGSR	Haidi Rober	M.Sc.	March 2010
14. AES-Based Offset Codebook (OCB) Security Architecture for Wireless Sensor Networks	Computer Engineering, Arab Academy for Science & Technology	Mark Adel	M.Sc.	May 2010
15. Building an Internet-Based Distant Learning System	Information Technology Department, IGSR	Abdel-Ghaffar Refaat	M.Sc.	May 2010

16. Hybrid Asymmetric Symmetric Encryption for Secure Communication in Wireless Sensor Networks	Computer Engineering, Arab Academy for Science & Technology	Sahar Hasan	M.Sc.	June 2010
17. An optimum distributed energy balanced routing for wireless sensor networks	Electrical Engineering Dept., Faculty of Engineering Alexandria University	Sanaa Abdel-Dayem	M.Sc.	August 2010
18. Modeling and Analysis of Human Brain using Diffusion Tensor MRI	Computer Engineering Dept. Arab Academy for Science, Technology and Maritime Transport	Ahmed Mohamed Barbary	M.Sc.	April 2011
19. Static Object Segmentation in 3D Range Images	Information Technology Department, IGSR	Dina Abdel-Hafez Hussein	M.Sc.	June 2011
20. Design of an Intelligent System for Information Monitoring	Information Technology Department, IGSR	Amr Goda Mahrous El-Shenawy	M.Sc.	Oct. 2011
21. Data Transmission Security of Banking Transfers	Information Technology Department, IGSR	Ahmed Mohamed Ahmed Hasan	M.Sc.	Oct. 2011
22. Network Congestion Prediction and Identification of the Source Problems Using Artificial Intelligence Techniques	Information Technology Department, IGSR	Hany Hamdy Hussein	M.Sc.	Nov. 2011
23. Dynamic Management of Audio Quality for Real Time Streaming	Computer Engineering Dept. Arab Academy for Science, Technology and Maritime Transport	Ahmed Moustafa Salem Ahmed	M.Sc.	Nov. 2011
24. Integrating Support Vector Machine and Genetic Algorithms to Classification Systems	Mathematics Department, Faculty of Science, Alexandria University	Noha Adam Salem	M.Sc.	March 2012
25. A Novel Cross Site Scripting (XXS) Detection Tool (XSS-DT)	Information Systems Department, College of Computing & Information Technology, Arab Academy for Science, Technology and Maritime Transport	Maha Farag	M.Sc.	March 2012
26. Developing Quality Management Information System, Minimizing downtime to improve productivity	Productivity and Quality Institute, Arab Academy for Science & Technology	Adel Sabry El-Kholy	M.Sc.	June 2012
27. A Hybrid Paradigm Aggregating Web Service and Mobile Agent	Computer Engineering Department, Arab Academy for Science, Technology and Maritime Transport	Mohamed El-Kholy	M.Sc.	August 2012

28. Relationship Between Knowledge Management and Innovation in Small and Medium Enterprises	Information Systems, Arab Academy for Science, Technology and Maritime Transport	Mahmoud Aly Ghanem	M.Sc.	August 2012
29. Study of techniques and methodologies of artificial intelligence: Application in computer game design	Information Technology Department, IGSR	Ahmed Yousef Ahmed Hatem	M.Sc.	October 2012
30. Improving Students' Performance using Association Rule Mining in Academic Advising Process	Computer Science Department, Arab Academy for Science, Technology and Maritime Transport	Gamal Abdel-Nasser Ahmed	M.Sc.	Nov. 2012
31. Automated Tracking Risk Technique for Data Migration	Computer Engineering Department, Arab Academy for Science, Technology and Maritime Transport	Sara Moustafa Kamel	M.Sc.	March 2013
32. Secure Routing Protocols for Mobile Ad hoc Networks	Computer Science, Faculty of Science, Alexandria University	Ommelhana Saleh Saaid	M.Sc.	March 2013
33. Automatic Multi-Modal Content Based Web Image Retrieval System	Information Technology Department, IGSR	Mohamed Fathy El-Ghayesh	M.Sc.	April 2013
34. MedCloud: A Healthcare Cloud Computing System	Computer Engineering Department, Arab Academy for Science, Technology and Maritime Transport	Dalia Mohamed Ahmed Sobhy	M.Sc.	May 2013
35. Effect of Informatics on Ports. A Comparative Study	Business Administration Dept., Academy for Science, Technology and Maritime Transport	Ahmed Yehia Al-Mortada	Ph.D.	May 2013
36. Search Engines on the Semantic Web	Computer Science, Faculty of Science, Alexandria University	Hanan Faraj El-Delimi	M.Sc.	June 2013
37. Digital Image Restoration Using a Numerical Simulation Model	Information Technology Department, IGSR	Noha Shawky Khattab	M.Sc.	June 2013
38. A Combined Reading Technique to Detect Defects in Requirements Phase	Information Technology Department, IGSR	Amira El-Sayed Al-Shazly	M.Sc.	July 2013
39. Minimum Power Consumption of AUV using Optimized Selected Path and Computational Fluid Dynamics	Computer Engineering Department, Arab Academy for Science, Technology and Maritime Transport	Omar Osama Shalash	M.Sc.	August 2013
40. Improving the quality of Egyptian stock price Prediction using case-based reasoning and control charts	Productivity and Quality Institute, Arab Academy for Science, Technology and Maritime Transport	Tawfik Mostafa Khattab	Ph.D.	Oct. 2013

41. Detecting Intruders on Relational Databases	Information Technology Department, IGSR	Mahmoud Ghozlan	M.Sc.	Oct. 2013
42. Design of Flexible Software System	Information Technology Department, IGSR	Shimaa Khaled Shaker	M.Sc.	Nov. 2013
43. A Categorized Trust-Based Message Reporting Scheme for VANETS	Computer Science Department, Arab Academy for Science, Technology and Maritime Transport	Merrihan Badr Monir	M.Sc.	Dec. 2013
44. Secure Routing Protocols for Mobile Ad hoc Networks	Information Technology Department, IGSR	Youssef Ali Othman	M.Sc.	Jan 2014
45. An Enhanced System for Data Hiding in Images	Information Technology Department, IGSR	Wesam Ahmed El Atafy	M.Sc.	Feb 2014
46. Improved MARS Cyphering using a Meta-Morphic Enhanced Function	Computer Engineering Department, Arab Academy for Science, Technology and Maritime Transport	Moataz M. Naguib	M.Sc.	July 2014
47. Using Cloud Computing services to reduce power consumption in smart devices	Information Technology Department, IGSR	Ahmad Hytham Nijm	M.Sc.	August 2014
48. A Framework for Privacy Preservation within Data Mining Systems	Information Technology Department, IGSR	Mahmoud Moustafa Isamail	Ph.D.	August 2014
49. Assessing Organizations' Readiness for Customer Relationship Management Adoption: Case of Egypt	Faculty of Management and Technology, Academy for Science, Technology and Maritime Transport	Mennatallah Ammar	M.Sc.	March 2015
50. Adaptable Mobile User Interface for Securing E-learning Environment	Information Technology Department, IGSR	Mohannad El-Jbory	M.Sc.	March 2015
51. An architecture providing a lightweight for mobile web content access over enterprise cloud model	Information Technology Department, IGSR	Mohamed Ali	Ph.D.	April 2015
52. Prevention of DOM Based XSS Attacks Using a White List Framework	Computer Science Department, Arab Academy for Science, Technology and Maritime Transport	Khaled Abdullah Saeed Ali	M.Sc.	May 2015
53. Applying Fuzzy Logic to Improve Searching In Data Warehouse	Information Technology Department, IGSR	Ahmed Abdallah Mohamed	M.Sc.	June 2015
54. Finger Vein for Human Identification	Information Technology Department, IGSR	Wieam F. Aswad	M.Sc.	June 2015
55. Person Identification Using 3-D Face Recognition	Information Technology Department, IGSR	Amanj Shihab Ahmed	M.Sc.	June 2015
56. Creating a Model for Cloud Banking Services	Information Technology Department, IGSR	Arean Abdel Kadder	M.Sc.	July 2015
57. Smart Question Generator System	Information Technology Department, IGSR	Hafedh Hameed Albaghdadi	M.Sc.	August 2015
58. Evaluation of E-learning program versus Traditional	Information Technology Department, IGSR	Jasem Mohamed	M.Sc.	August 2015

Education instruction for undergraduate		Attia		
59. A Smart Model for Firewall Based on Fuzzy Petri Nets	Information Technology Department, IGSR	Aly Abdallah El-Zobaidy	Ph.D.	August 2015
60. A Navigation Approach for Configuring Distributed Hexagonal Metamorphic Autonomous Mobile Robots	Computer Engineering Arab Academy for Science, Technology and Maritime Transport	Hossam Hussein Sallam	M.Sc.	August 2015
61. Search Engine Optimization Using Data Mining Approach	Information Technology Department, IGSR	Khattab Omar Khorshed	M.Sc.	August 2015
62. Assessment of Library Service Quality at the Taha Hussein library to Improve Accessibility and Library Services for Visually Impaired People at the Bibliotheca Alexandrina	Productivity & Quality Institute Arab Academy for Science, Technology and Maritime Transport	Lamia Abdel Fattah	M.Sc.	Sept. 2015