C.V.

Personal Information :

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Position:	Professor of Computer Science Program Director of Energy Conservation Diploma Head of Energy Efficiency Group

Research Interest :

$\Rightarrow$ Power Systems Analysis.

$\Rightarrow$ Modeling and Simulation of Various Environmental Systems.

$\Rightarrow$ Energy Auditing and Conservation.

$\Rightarrow$ Artificial Intelligence and its Applications.

$\Rightarrow$ Pattern and Image Recognition.

$\Rightarrow$ Information Security.

Qualifications and Experience:

1980	Ph.D., Queen Mary College, University of London, U.K
1981 - 1983	Undergraduate Teaching and Graduate Teaching and Supervision, Department of Electrical Engineering, Faculty of Engineering, University of Cairo.
1984-Oct 1988	Graduate Teaching and Supervision, Setting up a Computer and Energy Laboratories. Research into Various Engineering and Scientific Problems. Institute of graduate Studies and Research, University of Alexandria.
Nov 88 - Jul 94	Chairman, of Electrical & Electronic Engineering Department, Jubail Industrial College, Kingdom of Saudi Arabia.
1994 -	Graduate Teaching and Supervision. Institute of graduate Studies and Research, University of Alexandria.

Teaching Experience :

⇒ Applied Mathematics
⇒ Operations Research
⇒ Network Analysis
⇒ Linear Algebra
⇒ Diakoptics
⇒ Applied Statistics
⇒ Mathematical and Simulation Modeling
⇒ Energy Modeling
⇒ Energy Conservation.
⇒ Computer Modeling
⇒ Data Mining
⇒ Environmental Database Systems

Industrial Experience :

1. Program Director of Energy Conservation Diploma.
Head of Energy Efficiency Group where Energy Auditing has been carried out for 33 Industrial facilities of different activities according to an agreement between the Institute of Graduate Studies and Research (IGSR) and the Industrial Modernization center (IMC).
2. Data manager for the IGSR project "Environmental Information monitoring program for water quality along the Mediterranean coast of Egypt" from 1998-2010.
3. Consultant for Schreder Electrical and Urban Equipment, Alexandria, Egypt from 1982-1984.
4. Shared in several meetings with group of electrical engineers from Alexandria electricity distribution co.(AEDC), and university staff members from Arab Republic of Syria for integrating the environmental and energy components in the curriculums of electrical power engineering.

Co-Supervising the following Theses for Ph.D. Degree in Environmental Studies :

1- An Environmental Management System for Maritime Ports.
Case Study: Maritime Alexandria Port.
2- Environmental Assessment of Heavy Metals Pollution in Bottom Sediments of the Gulf of Aden Yemen.
3-Developing Total Quality Management (TQM), and Total Quality Environmental Management (TQEM) in Egyptian Small and Medium Enterprises.

Co-Supervising the following Theses for Master Degree in Environmental Studies :

1. Lighting and the Environment with Regard to Energy Conservation: Optimum Design of Electrical Lighting Systems.
2. Information Content in Remote Sensing.
3. Data Acquisition System for Environmental Measurements.

4. Statistical Analysis of Total Suspended Particulate over the City of Alexandria during the Period 1975-1979

5. The Interface Correlating the Inner and the Outer Environments of Buildings: Modeling The Environmental Temperature.

6. A Study on Squatter Areas Impacts on Urban Environment in Alexandria.

7. Environmental Assessment of Health Services Buildings in Squatter Settlements.

8. Conserving Energy in Buildings by Passive Design Means.

9- The Green Architecture as an Approach to Build the New Communities in Toshka.

10- Environmental Assessment for the Egyptian Textile Products.

11- Environmental Management of Fertilizers Plants with Heavy Environmental Impacts in Egypt.

12- A Quantitative Structure Activity Relationships for Toxicity Determination of Amines and Phenols in the Environment.

13. Study of Environmental Impacts of Natural Gas Quality and Its Effects on Quality Indices of Electrical Power Generating Stations.

14-A Study on Energy Efficiency Improvement and its Environmental Impacts.

15-The Relationship Between Pesticides Degradation Rate and Recipient Water Quality.

16-A Study on Chemical Parameters and Some Pesticides Stability Relationships in the Aquatic Systems.

Co-Supervising the following Theses for M.Sc. Degree in Information Technology :

1. Design of Artificial Neural Network Simulation Environment.

2. Developing Fuzzy Expert System Simulation Environment.

3. Developing an Expert system for Oil Spill Crisis Management.

4. Determination of Steel and Slag Chemical Composition Produced by the Electrical Arc Furnace Using Artificial Neural Networks.

5. A Knowledge -based Decision Support System for Activated Sludge Wastewater Treatment Plant.

6- Performance Evaluation of Internetworking Protocols Using Network Analyzers.

7- A Framework For Service-Based Workflow Management System.

8- Developing an Effective and Efficient Textile Defect Recognition System Based on Interval Type -2 Fuzzy Logic.

9- Optimization of Drug Stock Amounts in Family Health Units Using Temporal Data Mining Techniques.

Co-Supervising the following Theses for Ph.D. Degree in Information Technology :

1-Developing a Robust and Flexible Image Watermarking Scheme for Protection of Intellectual Property.

2- Developing a Robust and Secure Image Transmission Scheme

Over Wireless Channels.

Co-Supervising the following Selected Projects for Diploma Degree in Energy Conservation :

1. Energy Assessment in Kafer EI-Dawar Textile Company.
2. On the use of Linear Programming Models in Energy Planning.
3. Economics of Using Natural Gas Instead of Mazout Oil in Misr Textile Industry.
4. Economics of Natural Gas Extraction Exploration.
5. Energy Pricing as an Effective Tool for Energy Conservation.
6. Comparative Study of Using a gas Turbine Instead of the National Power Grid in Alexandria Petroleum Company.
7. Simulation Modeling of Gasoline Consumption in Motor Cars.
8. Energy Assessment in Kafer EL-Zaiat Fertilizer Company.
9. Study of Using Natural Gas as a Substitute for Diesel Oil and solar oil in Misr Chemicals Company.
10. On the use of Solar Energy in Pumping Stations for Piped Petroleum Products.
11. Assessment of Energy Consumption in Textile Production in EI-Beida Co.
12. Energy Consumption Flow Patterns in Egypt: Case study El-Sadat City.
13. Statistical Modeling of Biogas Energy Generation.
14. Economics of Using Solar Energy in Egypt.
15. Energy Assessment in Alexandria Main University Hospital.
16. Energy Assessment in Alexandria Iron and Steel Company.
17. Energy Assessment in Transportation and Engineering Company.
18. Statistical Models for the Demand of Petroleum Products in Egypt.
19. Design of a Solar Energy Heating System.
20. Energy Conservation Considerations in Building Design.

Publications :

1- M. A. EI-Iskandarani, S. M. Darwish, and Marwan Hefnawy. Drug Consumption Prediction Through Temporal Pattern Matching. The 2013International Conference on Data Mining and Knowledge Engineering-The 2013World Congress on Engineering, London, U.K., 3-5 July 2013, pp1486-1492.

2- M. A. EI-Iskandarani, S. M. Darwish, and N. A. Elsayed. An Efficient and Effective Textile Defects Recognition System Using Computer Vision and Interval Type -2 Fuzzy Logic. International Conference on Innovative Engineering Systems. EJUST-Alexandria, Egypt, 7-9 December 2012, pp.148-153.

3-M.M.El-Shoubary,M.A.El-Iskandarani,andM.H.Hegazy.Improving Organizational Performance of Small and Medium Enterprises in Egypt through Promoting the

Human Factors in Quality Management Systems. International Journal of Business and Management, Vol. 5, No. 6, June 2010, pp. 74-91.

4- M. A. EI-Iskandarani, S. M. Darwish, and A. M. Abubahia. Capacity and Quality Improvement in Blind Second Generation Watermarking. 43rd Annual 2009 IEEE International Carnahan Conference on Security Technology, Zurich, Switzerland, 5 – 8 October 2009, pages 139-143.

5- M. A. EI-Iskandarani, S. M. Darwish, and S. M. Abubguba. Reliable Wireless Error Correction Technique for Secure Image Transmission. 43rd Annual 2009 IEEE International Carnahan Conference on Security Technology, Zurich, Switzerland, 5-8 October 2009, pages 184-188.

6- M. A. EI-Iskandarani, S. M. Darwish, and S. M. Abuguba. A Robust and Secure Scheme for Image Transmission Over Wireless Channels. 42nd Annual 2008 IEEE International Carnahan Conference on Security Technology, Prague, Czech Republic, 13 – 16 October 2008, pages 51-56.

7- M. A. EI-Iskandarani, S. M. Darwish, and A. M. Abubahia. An Efficient Digital Image Watermarking Scheme. 42nd Annual 2008 IEEE International Carnahan Conference on Security Technology, Prague, Czech Republic, 13 – 16 October 2008, pages 37-42.

8- M. A. EI-Iskandarani, A. S. Soliman, H. M. Elwakil, and Amira M. Elmaghawry. Database Mining To Indentify Salinity Tolerance Genes in Rice (Oryza Sativa, L.). journal of the advances in agricultural researches, volume 13, No. 2, June 2008, pages 205-230.

9- M. A. EI-Iskandarani, M. A. Fikry, and M. Attia. Operable Passive Elements for Enhancing Indoor Thermal Comfort. Architecture and Planning Journal, Faculty of Architectural Engineering, Beirut Arab University, Vol.19, Jannuary, 2008,pp.1-16.

10- S. M. Kasem, S. M. Nasr, M. A. Okbah, M. A. EI-Iskandarani. Geochemical Forms of Heavy Metals in the Gulf of Aden Sediments-Yemen. the Arabian Seas International Conference on Science and Technology of Aquaculture, Fisheries and Oceanography , 10- 13 Feb 2007,state of Kuwait.

11- S. M. Nasr, M.A. Okbah, M. A. EI-Iskandarani, S. M. Kasem. Fractionation of Heavy Metals in the Gulf of Aden Sediments, Yemen, Submitted for Publication at the International Journal of Oceans and Oceanography.

12- M. A. EI-Iskandarani, . M. Abdul-Kader. ″ Biometric Authentication System Using Fingerprints, Based On Self- Organizing Map Neural Network Classifier. Alexandria Engineering Journal, Alexandria University, Vol.44, No.5, Pp. 731-743, Oct.2005.

13- M. A. EI-Iskandarani, . M. Abdul- Kader. ″PC Eletromic Cards Diagnosis using Expert Systems″. 13th International Conference on Artificial Intelligence Applications, 23-26 February, 2005, Cairo, Egypt.

14- M. A. E1-Iskandarani, S. M. Nasr, M. Okbah, and A. Jensen, "Principal Component Analysis for Quality Assessment of Mediterranean Coastal Water of Egypt" AMSE Journal, Sep. 2003,pp.69-83.

15- M. A. EI-Iskandarani, M. T. Sorour, and L. M. Bahgat, "An Integrated Knowledge-Based Decision Support System for an Activated Sludge Waste Water Treatment Plant" Alexandria Engineering Journal, Alexandria University, Vol.38, No.6, C 589-610, November 1999.

16- M. A. EI-Iskandarani, E. A. EI-Rafey, and A. A. Zakaria, "Determination of Chemical Composition of Slag Produced by the Electric Arc Furnace Using Artificial Neural Networks" 24th International Conference for Statistics, Computer Science and its Applications. 22-27 May 1999, Cairo, Egypt, pp. 361-374.

17- N. A. Abdel Wahab, M. A. EI-Iskandarani, M. A. Halim, S. M. Nasr, and M. S. Sadek, "EXSOSCM: An Expert System for Oil Spill Crisis Management" 24th International Conference for Statistics, Computer Science and its Applications. 22-27 May 1999, Cairo, Egypt, pp. 427-438.

18- M. A. EI-Iskandarani, M. A. Halim,Y. N. Gursky, and S. M. Nasr, "Application of Artificial Neural Networks in Predicting Geochemical Constituents of Interstitial Water of Marine Sediments" International Conference on Environmental Management, Health and Sustainable Development, Alexandria, Egypt. 22-25 March, 1999.

19- M. A. EI-Iskandarani, M. A. Halim, S. M. Nasr, M. S. Sadek, and N. A. Abdel Wahab, "A Comprehensive Managerial Approach for Oil Spill Crisis Management" International Conference on Environmental Management, Health and Sustainable Development. Alexandria, Egypt. 22-25 March, 1999.

20- M. A. EI-Iskandarani, E. A. EI-Rafey, and A. A. Zakaria, "Determination of Chemical Composition of Steel Produced by the Electric Arc Furnace Using Artificial Neural Networks", 6th International Conference on Artificial Intelligence Applications, 18-22 February, 1998, Cairo, Egypt, pp.285-292.

21- M. A. EI-Iskandarani, A. A. EI-Zoghabi, and A. A. EI-Kholy, "Fuzzy Logic: An Overview", 6th International Conference on Artificial Intelligence Applications, 18-22 Feb, 1998.Cairo, Egypt.pp.25-34.

22- M. A. EI-Iskandarani, A. A. EI-Zoghabi, and A. A. EI-Kholy, "Development of Fuzzy Rule Based Expert System Environment" 4th Joint Conference on Information Science, October 23-28,1998, N.C., JCIS 98 Proceedings vol.1,, pp. 25-27. U.S.A.

23- F. Mabrouk, M. A. EL-Iskandarani and K. EL-Wardany," Application of Phase Coordinates Reference Frame in Fault Level Calculation" - Part 2 - Numerical Examples. Alexandria Engineering Journal, Alexandria University, vol.28 no.4,pp.589-610, Egypt (1989).

24- M. A. EI-Iskandarani, F. Mabrouk, and K. EI-Wardany ."Application of Phase Co-ordinates Reference Frame in Fault Level Calculation"- part 1 Theoretical Analysis. -Alexandria Engineering Journal, Alexandria University, Vol.28 No.4 pp. 571-588, Egypt (1989).

25- E. A. EI-Rafey , M. A. EI-Iskandarani, and M. Gaber, "Regression Models for Prediction of solar Irradiance". First Symposium on Environmental Sciences , Institute of Graduate Studies and Research University of Alexandria, Egypt. April 6-7, 1988, pp.300-307.

26- E. Korany. M. EI-Iskandarani, H. Amin, "Computer Based Data Acquisition System for environmental Measurements " First Symposium on Environmental Sciences, Institute of Graduate Studies and Research, University of Alexandria, Egypt, ApriI6-7,1988,pp.245-254.

27- M. A. EI-Iskandarani, M. EI-Raey, and S. EL-Kaffas, "Eigen analysis of Information Content in Remote Sensing Profile Retrieval", First Symposium on environmental Sciences, Institute of Graduate Studies and Research University of Alexandria, Egypt, ApriI8-7,1988,pp308-320.

28- M. A. EI-Iskandarani, and M. A. Laughton, "The Structure of Power Network Voltage Profiles", 7th Power Systems Computation Conference. Proceeding Vol.1 Lausanna, Switzerland, July 1981.

29- M. A. Laughton, and M. A. EI-Iskandarani, "On the Inherent Network Structure", 6th Power Systems Computation Conference, Proceeding Vol.1, Darmstdt, August l979, pp.118-196.

30- N. Abou Taleb, I. A. Megahed, M. A. EI-Iskandarani and A. Mousa, "A Modified Method for Solving the Economic Dispatching Problem., IEEE Trans., Power Apparatus and Systems, Vol. PAS-96, January, 1977.

31- N. Abou Taleb, I. Megahed, A. Mousa, and M. A. EI-Iskandarani, "Combined use of the Griffith Stewart and Simplex Methods for Solving the Optimal Load Flow Problems", 2nd Conference of Statistical Studies, 1974, Cairo, Egypt.