

C.V.

Name : Prof. Dr. Eng. Hesham N. Elmahdy (*Computer Sciences and Information Systems Consultant*)

Religion : Moslem.

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Marital Status : Married & has 3 sons.

Birth Day : September 16, 1958.



Current Position :

1. Vice Dean of The Society Service and Community Development Faculty of Computers and Information (FCI) Cairo University, Giza, Egypt (Since January 2017).
2. Professor and Chair of Information Technology Department, Faculty of Computers and Information (FCI) Cairo University, Giza, Egypt (from November 2014 to September 2017).
3. FCI Scientific Associations Advisor (since Jan. 2007).
4. Computer Sciences and Information Systems Consultant to some Tempus Projects (Assuit University), HEEPF Projects in Cairo University and United Nations Developing Project.
5. E-Learning Scientific Advisor in The Open University Center of Cairo University (since Sep. 2009).

Previous Position:

- 1- A Supreme Committees Member of Cairo University: Conferences and Exhibitions Committee, Society Services and Environment Development Committee, and E-Learning Project (2006-2007).
- 2- Consultant to Cairo University Vice President (as a member of technical office of research centers and the units of special natures – from November 2005 till August 2008).

Some Distinct Activities in E-Learning:

1. Dr. Hesham was invited by the ISESCO as its expert to lead the discussion in the workshop: Mechanisms to promote cooperation between private sector institutions in the Arab Gulf states and exchange of experiences in the field of Communications and Information Technology in Sharjah, United Arab Emirates in November 7 - 11, 2010.
2. Dr. Hesham was invited by the ISESCO to demonstrate his eLearning experiment in the International Conference on Diffusion of ICTs in Academia: Learning in the Digital Age in Islamic Countries in Khartoum, Republic of Sudan in October 4 - 5, 2010.
3. Dr. Hesham has headed a team to developing the E-learning courses of a one year diploma in E-learning in the Open University Center of Cairo University since September 2009. The site for the e-learning diploma is <http://itechnology.fci.cu.edu.eg/>.
4. Dr. Hesham was awarded the prize of “The Best Innovative Ideas to Develop Cairo Universities” in August 2009.
5. Dr. Hesham was invited by the ISESCO to evaluate the utilization of the E-learning and web technology in the Arabic and Islamic countries (The first time in Cairo from 27 to 31 October

2007, the second time in Rabat - Kingdom of Morocco from 15 to 16 November 2007, third time in Damascus, Syria July 13-15, 2009.

6. Dr. Hesham taught a short course named "How to Develop Your Course in E-learning Environment" for three groups in the "Arab Council for Graduate Studies and Scientific Research, Cairo". In 2008 and 2009.
7. He prepared the bylaw of a one year diploma in E-learning in the Open University Center of Cairo University. This diploma has been proposed starting from this academic year (Academic year 2009-2010).
8. He held many introductory session of E-learning using MOODLE in many places: The Military Technical Collage, Faculty of Computers and Information (Cairo University, Ain Shams University, and Asuit University).
9. In April 2008, he was invited by Petra University in Jordan to teach a four days course of how to use MOODLE for developing a course management system for faculties.
10. He co-organized The First International Conference of Information and Communication Tech. in Pre-University Education, Ministry of Education, Cairo, 22-24 April, 2007.
11. He developed three E-courses using Pleiad for the Avicenna Projects (Internet Technology, Computer Graphics, and Introduction to Information Technology).
12. He published a paper titled: "**Evolution of Information and Communication Technology in Education** –in Arabic Language", *The First International Conference of Information and Communication Tech. in Pre-University Education, Ministry of Education, Cairo, 22-24 April, 2007.*
13. Dr Hesham was chosen as an E-learning Supreme Committee Member of Cairo University to test and approve the e-learning courses of all faculties in 2006-2007. (Cairo University has targeted 10% of its courses to be transferred into e-learning). He pushed the idea of using MOODLE for developing and managing courses.
14. He was an invited speaker in the Fifth International Conference in Internet Education, "**Evolution of E-Learning in Egyptian Universities,**" *The Human and Technology Development Foundation, Cairo, Sep. 2006.*
15. UNISCO Cairo office invited him to co organize and to teach a short course in developing an E-learning course for high school teachers (250) in the Egyptian Ministry of Education for three days, in Mobarak City for Education, 6th. of October City, Nov. 14-16, 2006.
16. Dr. Hesham has been using "MOODLE" in teaching his courses in The Faculty of Computers and Information, Cairo University. He developed seven e-courses since 2006.(Computer Graphics, Internet Technology, E-learning, Computers and Communication, Design of Information Systems, Multimedia.
17. In 2006, he served as a Computer Science and Information Systems Consultant to some Tempus Projects (Assuit University), HEEPF Projects in Cairo University and United Nations Developing Project.
18. He co-organized The First International Conference on Virtual Universities, Avicenna Knowledge Center – Egypt, 13 June 2006.
19. In 2005, Dr. Hesham was chosen as a consultant to the E-learning center of Cairo University (a project sponsored by the Euro TEMPUS).
20. He published a paper titled "**Open Source in Practice,**" in *The Symposium of Open Source Software and Its Quality ,Scientific Researches Academy, Cairo, Jun 13, 2005.*
21. He co-advised a graduation project in designing and implementing an E-learning system in 2002.

22. He has applied those ways in his courses since 2001 (starting his new career in Ain Shams University, Faculty of Computers and Information Sciences). He has continued this methodology starting from 2003 when he started working in Cairo University in Sep. 2003.
23. Dr. Hesham published another paper titled “**Preparing the Environment of Information Systems in Teaching institute for the 21st. Century**” in the Journal named *Technology and Armament Magazine for Egyptian Armed Forces*, Cairo, July. 1999. (In Arabic Language).
24. Dr Hesham N. Elmahdy published a paper titled “**Developing the Ways of Teaching Using the Internet,**” in the conference held in Cairo university *Developing Ways of Teaching :A Vision to Future University Conference*, , pp. 605-614, May. 1999. (In Arabic Language). He proposed the mentioned ideas to be applied in The Military Technical College as a prototype in 1999.

Editor in Chief of an International Journal:

Journal of Computer Networks and Internet Research (CNIR) <http://www.icgst.com/CNIR.html> from Dec. 2004 to Jan. 2009).

Heading sessions in International Conferences:

- 1- **Information Security and Cryptography**, during The Forty One Conference on Statistics, Computer Science, and Operations Research, The Institute of Statistical Studies and Research (ISSR), Cairo University, Cairo, Egypt, 3-6 Dec 2006.
- 2- **Programmable Devices, Circuits and Systems**, The International Congress for Global Science and Technology (ACSE, AIML, and ARAS) Conference, www.icgst.com, Dec. 19-21, 2005, Cairo.
- 3- **Information Systems for the Environment**, The Forty International Conference of Statistics, Computer Science, and Operations Research, ISSR, Cairo University, Dec. 4-6., 2005.
- 4- **Intelligent Systems**, The 7th International Conference on Intelligent Engineering Systems (INES 2003), Asyut, Egypt, March 4-6, 2003.

Web Architect of International Conferences:

1. The Fourth International Conference of Informatics and Systems, Cairo University, Mar 25-27, 2006 <http://www.fci-cu.edu.eg/INFOS2006/>.
2. The Third International Conference of Informatics and Systems, Cairo University, Mar 19-22, 2005 <http://www.fci-cu.edu.eg/INFOS2005/>.
3. The First International Conference on Intelligent Computing and Information Systems (ICICIS 2002), Ain Shams University, Faculty of Computer and Information Sciences, Cairo, Egypt, June 24-26, 2002.

International Program Committee Reviewer (Journals and Conferences):

1. The IEEE Transactions on Wireless Communications (since April 2008).
2. The IASTED International Conference on Communications and Computer Networks (CCN 2006), which is to take place in Lima, Peru from October 04-06, 2006.
3. The IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA 2006), February 13-16, Innsbruck, Austria.
4. IEEE Computer (<http://www.h-elmahdy.net/ieee.jpg>).
5. The International Arab Journal of Information Technology (<http://www.iajit.org/>).
6. The Egyptian Informatics Journal, Faculty of Computers and Information, Cairo University.
7. The International Journal on Artificial Intelligence and machine learning (AIML) Committee (<http://www.icgst.com/committee/aimlCom.html>). <http://www.icgst.com/AIML.html>.
8. The International Congress for Global Science and Technology (ICGST) general steering committee (<http://www.icgst.com/committee/icgstcom.html>). <http://www.icgst.com/>, Germany.
9. The Forty International Conference of Statistics, Computer Science, and Operations Research, ISSR, Cairo University, Dec. 3rd., 2005.

10. The Third International Conference of Informatics and Systems, Cairo University, Mar 19-22, 2005 <http://www.fci-cu.edu.eg/INFOS2005/>.
11. The IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA 2005), Grindelwald, Switzerland from February 21-23, 2005. Dr. Hesham was invited as a speaker in that conference to share his expertise by planning a tutorial or organizing special session regarding his current research.
12. The 2nd IASTED International Conference on Communication and Computer Networks (CCN 2004), which is to take place in MIT Cambridge, USA from November 8- November 11, 2004.
13. The 8th IASTED International Conference on INTERNET & MULTIMEDIA SYSTEMS & APPLICATIONS (IMSA 2004), August 16-18, 2004, Kauai, Hawaii, USA.
14. The Second International Conference on Informatics and Systems (INFOS 2004), FCI, Cairo University, March 6-8, 2004.
15. IASTED International Conferences on Computer Systems and Applications March 30 - April 2, 1998, Irbid, Jordan.
16. The International Arab Journal of Information Technology (<http://www.iajit.org/>).

Invitations to Organize Special Session or Tutorial in International Conferences:

- 1- **Internet Crimes and how to face them**, in The Faculty of Science, Cairo University, Cairo, Egypt, May. 18th., 2009.
- 2- **Internet Crimes and how to face them**, in The Central Library, Cairo University, Cairo, Egypt, Apr. 30th., 2009.
- 3- **Internet Crimes and how to face them**, during The Forty-One Conference on Statistics, Computer Science, and Operations Research, The Institute of Statistical Studies and Research (ISSR), Cairo University, Cairo, Egypt, 3-6 Dec 2006.
- 4- **Voice and Video over IP Applications**, The 10th World Multi-Conference on Systemic, Cybernetics and Informatics: WMSCI 2006 Jointly with The 12th International Conference on Information Systems Analysis and Synthesis: ISAS 2006 July 16-19, 2006 – Orlando, Florida, USA.
- 5- **Semantic Web**, The Forty International Conference of Statistics, Computer Science, and Operations Research, ISSR, Cairo University, Dec. 5th., 2005.
- 6- Managing a Special Session on “**Internet Security and Cryptography**”, during The International Artificial Intelligence and Machine Learning Conference, AIML-05 Cairo, Egypt, 19-21 Dec. 2005. (<http://www.icgst.com/aiml/InternetSecurity.html>).
- 7- The IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA 2005), which is to take place in Grindelwald, Switzerland from February 21-23, 2005.

Consultant to Ministries and other Entities:

- 1- The Egyptian Ministry of High Education (Evaluating their web site) Jan 2006.
- 2- "Ibn Sina" (The Distance Learning Project – A Joint Project between Cairo University and The European Union).
- 3- The Egyptian Ministry of Local Development (Technical Evaluation of the Ministry Portal Proposals – Sponsored by the United Nations Development Projects (UNDP) – May 2005).
- 4- The Higher Education Ministry Projects (HEEPF): The Faculty of Veterinary and Faculty of Cultivation - Cairo University Feb 2005.
- 5- Open University, Cairo University from April to Sep 2004.
- 6- Ain Shams University Educational Networks (ASUNET) from Sep 2002 to Sep 2003.
- 7- The Egyptian Ministry of Education (from Feb. 2001 to Sep 2003).

Organizing Workshops “The Use of Free and Open Source Software (FOSS)” (Apache, MYSQL, and PHP) in the following Institutions/events:

1. The Faculty of Science, Cairo University, Feb. 20th, 2009.
2. The Faculty of Computers and Information, Cairo University, Sep 20th, 2008.
3. The Faculty of Computers and Information, Cairo University, Sep 24th, 2007.
4. The University of Petra in Jordan (E-Learning using MOODLE) for three days: April 20-22, 2008.
5. The Arab Academy for Science, Technology, and Maritime Transport, Egypt, Nov. 5th., 2006.
6. The Faculty of Computers and Information, Cairo University, Sep 20th, 2006.
7. The Faculty of Computers and Information, Cairo University, Jun. 13th, 2006.
8. The Arab Academy for Science, Technology, and Maritime Transport, Egypt, Feb. 19th, 2006.
9. The International Academy for Media Science (IAMS), Egypt, Feb. 18th, 2006.
10. The Faculty of Computers and Information, Cairo University, Dec. 4th, 2005
11. Information Technology Institute, Ministry of Communication and Information Technology, Cairo, Egypt, Sep. 28th, 2005.
12. Faculty of Cultivation, Ain Shams University, Sep. 28th, 2005.
13. The Arab Academy for Science, Technology, and Maritime Transport, Egypt, Sep. 25th, 2005.
14. The Faculty of Computers and Information, Cairo University, Jun. 11th, 2005.
15. The Arab Academy for Science, Technology, and Maritime Transport, Egypt, Mar. 27th, 2005.
16. The International Academy for Media Science (IAMS), Egypt, Feb. 19th, 2005.
17. The Faculty of Veterinary, Cairo University, Feb. 13th, 2005.
18. The Arabian Scout Organization (12 Arabian Countries representatives) Jan. 5th, 2005.
19. The Institute of Statistical Studies and Research, Cairo University, The Thirty Ninth International Conference, Dec. 14th, 2004.
20. The Egyptian Ministry of Education, Dec. 9th, 2004.
21. Department of Information Systems, Egyptian Ministry of Defense, Dec 2nd, 2004 (a special session for the distinguished programmers of the department).
22. Military Technical College (MTC), Cairo, Egypt Nov 24th, 2004 (a special session in the Third Scientific Conference of the MTC Nov 23-25, 2004).
23. The Faculty of Computers and Information, Cairo University, Nov 22nd, 2004.
24. The Arab Academy for Science, Technology, and Maritime Transport, Egypt, Oct. 10th, 2004.
25. Misr University for Science and Technology, Egypt, Oct. 12th, 2004.

Organizing and Managing Symposiums:

1. The Faculty of Computers and Information, Cairo University , "Youth Health, Birth Control, and Parity Problems," with the Cooperation of the Ministry of Health and Population, Nov. 30th, 2004.
2. Mobile Third Generation and its Environmental and Health Effects, Faculty of Computers and Information, Cairo University, Nov. 22nd., 2004. (Sponsored by Mobinil).

Published Books:

- 1- Hesham N. Elmahdy, “Internet Technology: Web/WAP Enabled Applications,” October 2006.
- 2- Co-author, “Computer” : Primary, Prep, and Secondary Schools (Ministry of Education-five books) starting from 2001 till 2006.

Reviewing Books:

- 1- Hesham N. Elmahdy, "Verbal Communication," The Egyptian Ministry of Higher Education, 2006-2007.

Publishing Articles in International and Local Newspapers and Magazines:

- 1- The Mississippian, Jan 1997.
- 2- Elaalam Elyoum, Jun .11th. 2001
- 3- Ashark Elawsat, Aug. 29th., 2002.
- 4- Itsalat Elyoum, Nov. 29th., 2002.
- 5- Loghat Elaasr Magazine, Dec. 2003.
- 6- Alakhbar, Sep. 14th., 2004.
- 7- Elmessaa, Aug., 21st., 2005.

Education:

- 1- Ph. D. in Computer Science :
From : University of Mississippi, School of Engineering, Computer Science Department, USA.
Diss. Title : Virtual Entities as a Model For Transmission Of Multimedia Across Networks.
Date : Dec. 1997.
- 2- Master of Science in Computer Science :
From : University of Mississippi, School of Engineering, Computer Science Department, USA.
Date : Aug. 1996.
- 3- Master of Science in Computer Science :
From : Cairo University, Institute of Statistical Studies and Research, Computer Science Department, Cairo, Egypt.
Thesis Title : A Knowledge Base System for Representing Islamic Jurisprudence Knowledge and Understanding Arabic Natural Language Query.
Date : June. 1992.
- 4- Diploma in Computer Science :
From : Cairo University, Institute of Statistical Studies and Research, Computer Science Department, Cairo, Egypt.
Evaluation : Very Good with Honor Degree.
Order : First Student of the colleagues
Date : May. 1984.
- 5- B. Sc. In Mechanical Engineering (Automotive):
From : The Military Technical College, Cairo, Egypt.
Evaluation : Excellent with Honor Degree.
Order : First Student of the colleagues
Date : July. 1981.

Training:

- 1- Cloud Infrastructure Services
In : EMC2 Excellency Center. Date : Jan. 2015 (Intensive Course).
- 2- Big Data Analytics
In : EMC2 Excellency Center. Date : Jan. 2015 (Intensive Course).
- 3- Oracle Course
In : Giza Systems Education Center. Date : Jan. 2000 (for three weeks).

- 4- Advanced Logistics Course
In : University of Pennsylvania, USA. Date : Dec. 1999 (for three weeks).
- 5- Apple Macintosh (4th. Dimension, Excel, Alnasher Almakty, Network) courses.
In : PACC EGYPT Education Center. Date : July. 1993 (for three weeks).
- 6- Short Term Course on IBM ES 9000 series with MVS/ESA and working with RACAF Security System
In : IBM (Egypt Branch) Education Center. Date : Aug. 1992 (for three weeks).
- 7- IBM Education Course: CSP Education
In : IBM (Egypt Branch) Education Center. Date : Aug. 1991 (for three months).
- 8- Logistics Management Development
In : Logistics Management College, Fort Lee, VA, USA. Date : May 1990 (for two months).
- 9- IBM Database 2
In : IBM (Egypt Branch) Education Center. Date : Jul. 1989 (for two months).
- 10- IBM Training Courses (VMS and IBM 4381).
In : Newcumberland Army Depot, Pennsylvania, USA. Date : May 1987 (for 10 months).
- 11- IBM Training Courses (VMS and IBM 4381).
In : IBM (Egypt Branch) Education Center. Date : May 1986 (for 5 months).
- 10- Basic Programming.
In : Institute of Information Systems. Date : Feb 1985 (for 1 month).
- 11- Basic Technical Courses of Information Systems.
In : The Military Technical College, Cairo. Date : May 1984 (for 10 months).
- 12- Cobol Programming.
In : The Central Authority of General Mobilization and Statistics, Cairo, Egypt.
Date : June 1982 (for 3 months).

Important Note:

He got the highest score in the course of planning and preparing faculties of Ain Shams University (about 500 faculty members). Aug. 24 to Sep. 10, 2001. He has been selected to teach that course starting from 2002.

Publications:

1. Khaled Rjoob, Magd Ahmed Kotb, **Hesham Nabih Elmahdy**, Christine William Shaker, Fatma El Zahraa Mostafa, and Mohamed Ahmed Refaey, "**Recognition of Heart Murmur Based on Machine Learning and Visual Based Analysis of Phonocardiography**," *The Proceedings of Computing Conference 2018*, London, United Kingdom, 10-12 July 2018 -
2. **Elmahdy, H. N.**, H. S. Sobhy, and A. M. Kotb, "**ARDS: A Model for Securing Data in Mobile Cloud Computing**", *The Egyptian Computer Science Journal (ESC)*, vol. 40, issue 1, pp. 10-25, 2016.
3. **Elmahdy, H. N.**, W. Mourad, B. B. S. Tawfik, I. A. Saroit, and S. E. arek habian, "**Improving Wireless Sensor Networks Life Time**", *The Egyptian Computer Science Journal (ESC)*, vol. 40, issue 1, pp. 1-9, 2016.
4. **Elmahdy, H. N.**, M. H. Salama, and S. Taha, "**PMAS: A Proposed Mutual Authentication Scheme for Wireless Body Area Networks**", The Proceedings of The International Conference on Convergence ICTC 2015, Jeju Island, Korea, Oct. 28-30, 2015.
5. **Elmahdy, H. N.**, M. A. Kotb, N. E. Mahmoud, M. N. Hamed, and A. Lotfy, "**Pediatric Online Evidence Based Medicine Assignment Is A Novel Effective Enjoyable Undergraduate Medical Teaching Tool: A SQUIRE Compliant Study**", *Medicine*, vol. 94, issue 26, pp. 1-33, 2015.
6. **Elmahdy, H. N.**, M. Sharawi, Eid Emary, and I. A. Saroit, "**WSN's Energy-Aware Coverage Preserving Optimization Model based on Multi-Objective Bat Swarm Optimization Algorithm**", *The Proceedings of The IEEE Congress on Evolutionary Communication (CEC 2015)*, Japan, May 25th.-28th., 2015.
7. **Elmahdy, H. N.**, G. D. Fathy, and E. Emary, "**Supporting Arabic Sign Language Recognition with Facial Expressions SASLRWFE**", *The Proceedings of The 7th International Conference on Information Technology ICIT 2015*, Amman, Jordan, doi:10.15849/icit.2015.0024, pp. 164-170, May 12-14, 2015.
8. **Elmahdy, H. N.**, A. S. Anwar, K. A. R. E. E. M. KAMAL, and H. zawbaa, "**Human Ear Recognition using Fuzzy K-Nearest Neighbor**", *The Proceeding of The 1st. International Conference on Advanced Intelligent Systems and*

Informatics (Springer AISI2015), Benisuef, Egypt, pp. 1-7, 2015.

9. **Elmahdy, H. N.,** A. S. Anwar, and D. K. K. A. Ghany, "**Human Ear Recognition Using Geometrical Features Extraction**", *The proceedings of The International Conference on Communication, Management and Information Technology (ICCMIT 2015)* Procedia Computer Science 65 (2015), Elsevier, Direct Science, pp: 529 – 537, Prague-Czech, April 20-22, 2015. http://ac.els-cdn.com/S1877050915029567/1-s2.0-S1877050915029567-main.pdf?_tid=1e5bffa-da6f-11e5-be23-00000aab0f27&acdnat=1456260829_8766ef384a9bd68747c144eda78fa0c2
10. **Hesham N. Elmahdy,** Imane A. Saroit, and Walid Mourad, "**A New Energy-Efficient Cluster Head Selection Algorithm**," *The International Journal of Scientific and Engineering Research (IJSER)*, ISSN 2229-5518, Volume 6, Issue 4, April 2015.
11. Ghada Dahy Fathy, E. Emary, **Hesham N. El Mahdy,** "Supporting Arabic Sign Language Recognition with Facial Expressions," *The Proceedings of The 4th. International Conference on Mathematics and Information Science ICMIS 2015*, Zewail City of Science and Technology, Feb. 5-7, 2015.
12. Marwa Sharawi, E. Emary, Imane Aly Saroit, **Hesham N. Elmahdy,** "Flower Pollination Optimization Algorithm for Wireless Sensor Network Lifetime Global Optimization," *International Journal of Soft Computing and Engineering (IJSCE)*, vol. 4, no. 3, pp:54-59, July 05, 2014.
13. Marwa Sharawy, Eid Emary, **Hesham N. Elmahdy,** and Imane A. Saroit, "**BAT SWARM Algorithm for Wireless Sensor Networks Life Optimization**," *International Journal of Science and Research*, ISSN (Online): 2319-7064, Impact Factor (2012): 3.358, Volume 3, Issue 5, pp: 654-664, May 2014. <http://www.ijsr.net/archive/v3i5/MDIwMTMxNzEx.pdf>
14. Basma M. Almezgagi, M. A. Wahby Shalaby, **Hesham N. Elmahdy,** "Improved Iris Verification System", *ICGST Journal of Graphics, Vision Image Processing*, ISSN 1687-398X, Volume 14, Issue 1, pp:29--38, May 2014.
15. Mohamed A. Saleh, **Hesham N. Elmahdy,** "Improvement of Arabic Spam Web Pages Detection Using New Robust Features," *The IOSR Journal of Computer Engineering (IOSR-JCE)*, vol. 16, no. 2, pp: 24- 35, Mar-Apr 2014.
16. Mahmoud R. Morgan, Ben Bella S. Tawfik, **Hesham N. El Mandy** and Amira M. Kotb, "Effect of Topology Parameters Variation on AD-HOC Wireless Network Performance," *The CiiT International Journal of Wireless Communication*, (IF 1.250), ISSN 0974 – 9640, DOI: WC112013005, vol. 5, No 11, pp. 426–432, Nov. 2013, <http://www.ciitresearch.org/wcNovember2013.html>.
17. Marwa Sharawi, Imane Saroit, **Hesham Elmahdy,** and Eid Emary, "**Routing Wireless Sensor Networks based on Soft Computing Paradigms: Survey**," *International Journal on Soft Computing, Artificial Intelligence and Applications (IJSCAI)*, vol.2, no.4, pp:21-36, August 2013.
18. N. E. Mahmoud, M. H. N. Taha, **H. N. Elmahdy,** and I. A. Saroit, "A Secure Energy Efficient Schema for Wireless Multimedia Sensor Networks", *CiiT International Journal of Wireless Communication*, (IF 1.250), vol. 5, issue 6, pp. 235–246, June 2013.
19. Ben Bella S. Tawfik, **Hesham N. Elmahdy,** and Mahmoud R. Morgan, "Ad Hoc Wireless Networks QOS Enhancement- Dynamic Simulation Approach," *International Journal of Emerging Trends & Technology in Computer Science (IJETTCS)*, Impact Factor is 2.524 (ISRA.:JIF), ISSN 2278-6856, Volume 2, Issue 3, pp: 138-143, May - June 2013, <http://www.ijettcs.org/V2I3.html>
20. Mohamed H. Taha, Nour El Din M. Khalifa, **Hesham N. Elmahdy,** and Imane A. Saroit, "Energy Based Scheduling Scheme for Wireless Sensor Networks," *CiiT International Journal of Wireless Communication*, (IF 1.250), ISSN 0974 – 9756, Vol 4, No 16, PP 973 – PP 978, December 2012. <http://www.ciitresearch.org/wcdecember2012.html>.
21. Nour El Din M. Khalifa, Mohamed H. Taha, **Hesham N. Elmahdy,** and Imane A. Saroit, "A Secure Energy Mechanism for WSN and Its Implementation in NS-2," *CiiT International Journal of Wireless Communication*, ISSN 0974 – 9756, Vol 4, No 16, December 2012. <http://www.ciitresearch.org/wcdecember2012.html>.
22. Taha Mahdy, **Hesham N. Elmahdy,** and Hoda Onsi, "Efficient Watermark Detection By Using The Longest Common Substring Technique," *Egyptian Informatics Journal*, vol. 12, no. 2, pp: , July 2011. Ms. Ref. No.: EIJ-D-11-00014R1 <http://ees.elsevier.com/eij/>
23. Shady S. Khalifa, **Hesham N. Elmahdy,** Imane A. Saroit, Sanaa El-Ola. H. Ahmed, "An Implementation of High Speed Bluetooth over IEEE 802.11g," *CiiT International Journal of Wireless Communication*, (Impact Factor 0.572), vol 3, no. 7, pp. 546 - 552, DOI: WC052011012, May. 2011. <http://www.ciitresearch.org/wcmay2011.html>

24. Hesham N. Elmahdy, "Feasibility of E-Voting in Egypt after Jan. 25th Revolution," *Symposium of The Election through The Communications and Information Technologies, Scientific Society of Telecom Engineers*, Cairo, Mar. 29th, 2011. (in Arabic Language)
25. Yasser A. Dahab, Hesham N. El mahdy, Emane A. Saroit, "A Load Aware Routing Protocol for Mobile Ad hoc Networks," *CiiT International Journal of Wireless Communication*, (Impact Factor 0.572), vol. 3, no. 4, pp: 254-260, Mar. 2011. DOI: WC032011017, <http://www.ciitresearch.org/wcmarch2011.html>
26. Hesham N. Elmahdy, "Violations of Constition and Ethics Code Committed by The Governoment during The Jan. 25th Revolution," *Symposium of Why Would We do Against Crimes of Cutting off Communications and Information during Jan. 25th Revolution, Scientific Society of Telecom Engineers*, Cairo, Mar. 6th, 2011. (in Arabic Language)
27. Taha Mahdy, Hesham N. Elmahdy, and Hoda Onsi, "A Real Time Watermarking Algorithm for H.264," *CiiT International Journal of Digital Image Processing (Impact Factor 0.652)*, vol. 3, no. 1, pp: 34-42, January 2011. DOI: DIP012011006 <http://www.ciitresearch.org/dipjanuary2011.html>
28. M. E. Elhamahmy, Hesham N. Elmahdy, Imane A. Saroit, "A New Approach for Evaluating Intrusion Detection System," *CiiT International Journal of Artificial Intelligent Systems and Machine Learning (Impact Factor 0.763)*, vol.2, no. 11, pp: 290-298, Nov. 2010. DOI: AIML112010001 <http://www.ciitresearch.org/aimlnovember2010.html>
29. Hesham N. Elmahdy, "Requirements for Capacity Building and Cognitive Skills for Technical Users of Information Technology and Communication in The Arab States," *The ISESCO Workshop of Mechanisms to Promote Cooperation between Private Sector Institutions in The Arab Gulf States and Exchange of Experiences in Communications and Information Technology*, Sharja, United Arab Emarats, November 7 - 11, 2010. (in Arabic Language)
30. M. E. Elhamahmy, Hesham N. Elmahdy, Eman A. Saroit, "Impact of Data Set Distinction and Normalization in C5.0 Decision Tree," *The Second International Conference on Cybercrime & Information Security, Ahram-Canadian University (ACU), 6th of October City*, Nov. 1-2, 2010.
31. Hesham N. Elmahdy, "Learning in the Digital Age in Islamic Countries," *The International Conference on Diffusion of ICTs in Academia: Learning in the Digital Age in Islamic Countries, ISESCO*, Khartoum, Republic of Sudan, October 4 - 5, 2010.
32. Hussein H Mazaar and Hesham N Elmahdy, "Multiple Description Coding Based Network Coding," *International Journal of Computer Applications – IJCA (Published By Foundation of Computer Science-Impact Factor 0.835)*, vol. 6, no. 9, pp:35-40, Sep. 2010. <http://www.ijcaonline.org/archives/volume6/number9/1100-1491>
33. Hesham N. Elmahdy, "Why does Silicon Valley Project Fail in Egypt While Call Centrs Projects Have Succeeded?," *Symposium of Silicon Valley Failiar vs. Call Centrs Success in Egypt , Scientific Society of Telecom Engineers*, Cairo, September. 29th, 2010. (in Arabic Language)
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38. Hussein Maza'ar, and Hesham N. Elmahdy, "Multiple Description Image Network Coding Against Single Link Failure in Mesh Networks ," *The IEEE 3rd. International Conference on Multimedia Systems Architecture and Application (IMASS09)*, pp: 1 – 5, ISBN: 978-1-4244-4792-3, Bangalore, India, 9-11, Dec. 2009. <http://ieeexplore.ieee.org/search/freesrchabstract.jsp?reload=true&tp=&arnumber=5439472&queryText%3Dmaza'ar%26>
39. Hesham N. Elmahdy, "Analytical Study of The Websites in The Arab World and Assesment The Role of Universities and Research Centers in Bridging The Digital Divide," *The ISESCO Regional Workshop on Bridging*

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50. Hesham N. Elmahdy, "Employment of Information Technology Applicable Methodologies in Managing Educational Cybernetics," *The Regional Education Experts Meeting to Exchange Administrative Applications Experience, ISESECO*, Cairo, October 27-31, 2007, (in Arabic).
51. Yasser k. Ali, Hesham N. Elmahdy, Sanaa El Olla Hanfy Ahmed "Mobile Agents Migration in Peer-To-Peer Based On Machine Learning," *The 17th international conference on Computer Theory and Applications, ICCTA 2007*, pp:234-243, 1-3 September 2007, Alexandria, Egypt.
52. Yasser k. Ali, Hesham N. Elmahdy, Sanaa El Olla Hanfy Ahmed "Optimizing Mobile Agents Migration Based on Decision Tree Learning," *The Proceedings of The World Academy of Science, Engineering and Technology*, <http://www.waset.org/pwaset/v22.html>, Prague, Czech Republic, volume 22, ISSN: 1307-6884, pp: 564-570, July 2007.
53. Hesham N. Elmahdy "Evolution of Using Information Technology in Education," *The Proceedings of The First International Conference of Information and Communication Technology in Pre-University Education*, Mobarak Education City, 6th. October City, Egypt, April 22-24, 2007, (in Arabic Language).
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56. **Hesham N. Elmahdy**, Imane Tharwat, Abdelatif A. Elkouny, Mohamed A. El Sharqawy, "A Transcoding Technique for Secure Scalable Stream," *The International Journal of Intelligent Computing and Information Sciences*, Vol. 6 No. 1, January, 2006.
57. **Hesham N. Elmahdy**, Mahmoud A. Moneim, "Synchronization of Arabic Closed Captioning with Sign Language," *The Egyptian Computer Science Journal*, Vol. 28 No. 1, January, 2006.
58. **Hesham N. Elmahdy**, "Open Source in Practice," *The Symposium of Open Source Software and Its Quality*, Scientific Researches Academy, Cairo, Jun 13, 2005.
59. **Hesham N. Elmahdy**, "Mobile I-Service Delivery and Human Resources," *The Third International Conference of Informatics and Systems (INFOS2005)*, pp 263-271, Mar 19-22, 2005- Republished on the *ICGST International Journal on Computer Networks and Internet Research (CNIR)*, GVIP Vol 5, No.1, pp. 27-35 Dec., 2005.
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62. **Hesham N. Elmahdy**, and Ali A. Fahmy, "Evaluation of WebCam Architecture Challenges," *Computer Science and Engineering Journal CSE (ACSE-AIML-GVIP), ICGST International Congress for Global Science and Technology, Tübingen, Germany, volume v1, pp 1-7 (GVIP)*, Dec. 2004.
63. **Hesham N. Elmahdy**, "Web Supported Medical Education and Teaching," *The IASTED International Conference on Communications, Internet, and Information Technology (CIIT 2003)*, ISBN: 0-88986-398-9, pp 49-53, ,Scottsdale, AZ, USA, November 17 – 19, 2003.
64. **Hesham N. Elmahdy**, "Medical Diagnosis Enhancements Through Artificial Intelligence Techniques," *INES 2003, the 7th International Conference on Intelligent Engineering Systems, Assiut, Egypt*, March 4-6, 2003.
65. Hesham N. Elmahdy, "Web Enabled Education and Teaching," *Technology and Health Care archive*, Special Issue: Quality-e-Health, ISSN:0928-7329, Vol. 10 , No. 6, pp:481-482, Dec. 2002.
66. **Hesham N. Elmahdy**, "Web Enabled Education and Teaching," *MEDNET2002, The 7th Annual World Conference on the Internet and Medicine Amsterdam, Netherlands*, Dec. 5-7, 2002.
67. **Hesham N. Elmahdy**, "Arabization of Sciences, as a Main Directory in Distance Learning," *The Annual Conference of The Egyptian Society of Arabization of Sciences*, Jan 27, 2002. (in Arabic Language).
68. **Hesham N. Elmahdy**, "Crossing Safely to The 21st Century and Facing its Technology Threatening," *The 2nd International Conference of Electrical Engineering*, The Military Technical College, Cairo, Egypt, Nov. 22-25, 1999. (In Arabic Language).
69. **Hesham N. Elmahdy**, "Preparing the Environment of Information Systems in Teaching institute for the 21st Century," *Technology and Armament Magazine for Egyptian Armed Forces*, Cairo, July. 1999. (In Arabic Language).
70. **Hesham N. Elmahdy**, "Developing the Ways of Teaching Using the Internet," *Developing Ways of Teaching :A Vision to Future University Conference*, Cairo University, pp. 605-614, May. 1999. (In Arabic Language).
71. **Hesham N. Elmahdy**, and P. Tobin Maginnis, "Virtual Entities as a Model For Transmission Of Multimedia Across Networks," *IASTD International Conference on Networks and Communication Systems*, Pittsburgh, Pennsylvania, USA, May, 1998.
72. **Hesham N. Elmahdy**, "Machine Learning Applications in Medical Diagnosis," *IASTD International Conference on Computer Systems and Applications*, Yarmouk University in Lrbid, Jordan, April. 1998.
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75. Hesham N. Elmahdy, Mervat H. Gheith, Aly A. Fahmy, "A Knowledge Base System for Representing Islamic Jurisprudence Knowledge and Understanding Arabic Natural Language Query," *The Association of Using Arabic Language in Information Technology*, Saudi Arabia, May. 1992. (In Arabic Language).
76. Hesham N. Elmahdy, Mervat H. Gheith, Aly A. Fahmy, "How to get benefits from Artificial Intelligence in the Countries of Arabic Co- operation Counsel," *The Association of the Inhabitation of in the Countries of Arabic Co- operation Counsel*, Cairo, Mar. 11-12, 1990. (In Arabic Language).
77. Hesham N. Elmahdy, and Mervat H. Gheith, "Comparative Study of Knowledge Representation," *Egyptian Computer Journal*, Vol. 13 No. 2, pp 60-78, Dec. 1985.

Past Experience:

1- Teaching Computer Science Courses:

Course Name	Institution	Semesters + Audience
Advanced Research Topics in Information Technology-1 -> IT Scientific Research Development (IT751)	FCI-CU - (Ph. D Students)	1. 2015, 2016, 2017, 2018 the two semesters 2. 2013-2014 (Second semester) 3. 2012-2013 (Second semester)
Cloud Infrastructure Services CIS603	Faculty of Computer and Information Sciences, Cairo University (FCI-CU) Post Grad	from 2016 to 2018
Advanced Research Topics in Information Technology CIS608	Faculty of Computer and Information Sciences, Cairo University (FCI-CU) Post Grad	from 2016 to 2018
Internet Technology (IT223) itechnology.fci.cu.edu.eg	Faculty of Computer and Information Sciences, Cairo University (FCI-CU)+ The Syrian University at Ellazikia (Open University)	1. 2012-2013 summer semester 2. 2012-2013 first semester – Third Level 3. 2009-2010 first semester – Third Level 4. 2008-2009 first semester – Third Level 5. 2007-2008 first semester – Third Level 6. 2006-2007 first semester – Third Level
Advanced Topics in Information Technology-1 -> IT Scientific Research Development (IT623) http://it623.i-sciences.com/	FCI-CU - (Post Graduate)	1. 2015, 2016, 2017, 2018 the two semesters 2. 2013-2014 (Second semester) 3. 2012-2013 (Second semester)
Special Topics in Information Technology (iOS Applications Design and Developing) itechnology.fci.cu.edu.eg	FCI-CU - (Post Graduate)	1. 2011-2012 (first semester) 2. 2010-2011 (first semester)
iOS Real Time Control Applications itechnology.fci.cu.edu.eg	FCI-CU - (Post Graduate)	1. 2011-2012 (second semester) planed 2. 2010-2011 (second semester)
Fuzzy Logic itechnology.fci.cu.edu.eg	FCI-CU - (Post Graduate)	1. 2009-2010
Theory of Information Systems Design itechnology.fci.cu.edu.eg	Faculty of Computers and Information, Assuit University Pre-Master (by Video Conference)	1. 2009-2010 2. 2008-2009 3. 2007-2008
E-Commerce itechnology.fci.cu.edu.eg	Faculty of Computers and Information, Assuit University 4 th . year (by Video Conference)	1. 2009-2010
Information Management Systems	Sadat Academy	1. 2007-2008 first semester – Third Level MIS
Virtual Reality (IT431)	FCI-CU	1. 2006-2007 second semester – Fourth year IT
Computer Graphics (IT331) itechnology.fci.cu.edu.eg	FCI-CU	1. Second 2008-2009 – Third Level (IT+CS) 2. Second 2007-2008 – Third Level (IT+CS) 3. Second 2006-2007 – Third Level (IT+CS) 4. Second 2005-2006 Third Year (IT)

		5. First 2005-2006- Third Year (IS+CS) 6. Second 2004-2005-Third Year (IT) 7. First 2004-2005-Third Year (IS+CS) 8. Second 2003-2004-Third Year (IT)
Data Communication IT221	FCI-CU	1. Fall 2005 – Second Level
Database	ITI	1. Fall 2005 – MSc Preliminary Year
Software Systems & their Development (M301)	The Arab Open University	1. Fall 2005 – Third Level
Learning Online : Computing with confidence (TU170)	The Arab Open University	1. Fall 2005 – First Level
Report Writing	FCI-CU	1. Spring 2005 – First year
Information Systems Management (F811) http://www.h-elmahdy.net/ISM/	The Arab Academy for Science, Technology, and Maritime Transport	Fall 2006, Spring 2006, Spring 2005, Fall 2005
Multimedia (EF715) http://www.h-elmahdy.net/t715/	The Arab Academy for Science, Technology, and Maritime Transport	Fall 2006, Spring 2006, Fall 2005, Spring 2005, Fall 2004, Spring 2004, Fall 2003, Spring 2003, Fall 2002.
Design and Programming of Multimedia (MMI 308). http://www.geocities.com/mmi308/	The International Academy for Media Science (IAMS)	1. Spring 2005.
E-Commerce http://www.geocities.com/ecommercemust/	Misr University of Science and Technology	1. Fall 2004.
Internet Technology http://www.geocities.com/internetmust/	Misr University of Science and Technology	1. Fall 2004.
Introduction to Information Systems	Faculty of Computers and Information, Assuit University	1. First Semester 2003-2004 (Second Year).
Web Design http://www.h-elmahdy.net/web/	FCI-CU	1. Second 2003-2004 - Third Year (IS). 2. Second 2002-2003 - Third Year (IS).
Cognition http://www.h-elmahdy.net/cognition	FCI-CU	1. First 2003-2004 (Post Graduate-IT).
Data Structure and Program Design	The Faculty of Computer and Information Sciences, Ain Shams University (FCIS-ASU)	1. First 2002-2003 (Post Graduate). 2. First 2001-2002 (Post Graduate).
Office Automation (Multimedia) http://www.geocities.com/inf483/	FCIS-ASU	1. Second 2002-2003 (Fourth Year-IS). 2. Second 2001-2002 (Fourth Year-IS).
Advanced Multimedia http://www.geocities.com/inf483/	FCIS-ASU	1. First 2002-2003 (Post Graduate-IS). 2. First 2001-2002 (Post Graduate-IS).
Technical Report Writing http://www.h-elmahdy.net/hum212/	FCIS-ASU	1. Second 2002-2003 – Second Year. 2. Second 2001- 2002 – Second Year.
System Analysis and Design http://www.geocities.com/inf381	FCIS-ASU	1. Second 2001-2002 (Post Graduate – Faculty of Arts). 2. First 2001-2002.
System Analysis and Design http://www.geocities.com/inf381	October 6 University	1. Spring 2002 (Faculty of Engineering). 2. Spring 2002 (Institute of Engineering).
Computer Graphics http://www.geocities.com/inf482/	October 6 University	1. Fall 2001 (Faculty of Engineering). 2. Fall 2001 (Institute of Engineering).
Operating Systems	The Institute of Statistics Studies an Researches, Cairo University	1. First 2000 – 2001 Post Graduate.
Computer Networks	The Institute of Statistics Studies an Researches, Cairo University	1. First 2000 – 2001 Post Graduate.
Java Programming	The Institute of Statistics Studies an Researches, Cairo University	1. Second 2004 – 2005 Post Graduate.
Programming Language For Networks (JAVA)	The Military Technical College.	1. Second 1999 – 2000 (Fourth Year). 2. Second 1998 – 1999 (Fourth Year).
Introduction to Computers and Pascal Programming	The Military Technical College.	1. Second 1999 – 2000 (First Year). 2. Second 1998 – 1999 (First Year).
Operating Systems (Assistant)	University of Mississippi	1. Fall 1997. 2. Spring 1997. 3. Fall 1996. 4. Spring 1996.
Computer Networks (Assistant)	University of Mississippi	1. Fall 1997. 2. Spring 1997. 3. Fall 1996.

Also, teaching many Courses in the Ministry of Higher Education Programs (FLDP and ICTP) in 2005, 2006, and 2007.

2- Developing eCourses Using MOODLE and Pleiad Course Management Systems: <http://itechnology.fci.cu.edu.eg/>

- a- Introduction to Computers and Information Technology.
- b- Computer Graphics.
- c- Internet Technology.
- d- Multimedia.
- e- Cloud Infrastructure and Services.

3- Advising Post Graduate Researches:

- a- PhD:
 - i. Performance Analysis for E-Commerce Security (Finished in June 2006).
 - ii. Secured Video Stream Across Wireless Networks (Finished in July 2007).
 - iii. Enhanced Mobile Agent Performance in Distributed Systems Environment(Finished in April 2008).
 - iv. Quality of Service in Voice over IP.
 - v. Designing Robust Watermarking System for Real Time Video, Oct 2006.
 - vi. Remote Sensing Routing Algorithm (to be finished in October 2009).
 - vii. Management of QOS in Mobile Ad Hoc Networks.
 - viii. Improving Intrusion Detection and Prevention Performance

- b- M. Sc.:
 - i- Synchronization of Arabic closed Caption with Sign Language (finished Mar 2008).
 - ii- An Improved Video-Content Search utilizing Enhanced Arabic Text.
 - iii- An Efficient Algorithm for Synchronization of Embedded Messages in Arabic Closed Caption.
 - iv- Optimization of Traffic Path Thru WebCam Snap Shots.
 - v- QoS of WebCam Thru Mobile Browsers.
 - vi- Comparative Evaluation of Electronic Cash Payment Systems, with A Proposed Scheme.
 - vii- Systems Analysis: Tools, Methodologies, and Modeling (Finished in Sep 2005 – from Syria, In the Faculty of Science – Cairo University).
 - viii- Improving Efficiency of Secure Video over IP Transmission (to be finished in May 2009).
 - ix- Quality of Service in Video over IP.
 - x- Improving The Performance of The Anti-Global Positioning System (finished in Jun 2009).
 - xi- Improving Mobile Search on The Web.
 - xii- Improving The Performance of The Global Positioning System.
 - xiii- Subjective Quality of Service in Voice over IP (finished in Mar 2009).
 - xiv- Improving Object Detection and Tracking in Video.

4- Managing, Designing, Re-Engineering, and Architecture of Web Sites :

- a- The Scientific Societies of the Faculty of Computers and Information, Cairo University, since December 2007.
- b- The Islamic Society of Education, Science, and Culture (ISESCO) E-Gate since Nov. 2007.
- c- The Arab Council for Graduate Studies and Scientific Research (ACGSSR) since October 2007.
- d- The news and service on the Cairo University web site <http://cuweb.fci.cu.edu.eg/> from July 2007.
- e- The E-Learning site of the Faculty of Computers and Information, Cairo University <http://elearning.fci.cu.edu.eg/> from February 2007.
- f- The Egyptian University Sports Federation (EUSP) and its Squash International Championship (under construction now) from September 2007.
- g- The Fourth International Conference of Informatics and systems, Faculty of Computers and Information, Cairo University, Mar 25-27, 2006, <http://www.fci.cu.edu/INFOS2006/>.
- h- Amro Ibn Elaas Mosque Web Site <http://www.amribnelaas.com/> From February 2006.
- i- The Third International Conference of Informatics and systems, Faculty of Computers and Information, Cairo University, Mar 19-20, 2005, <http://www.fci.cu.edu/INFOS2005/>.
- j- WAP result of the Faculty of Computers and Information, Cairo University <http://www.fci.cu.edu/WAP> , you should have a Mobile Life subscription and student-ID to get a result on your mobile.

- k- Semester Results on the web of undergraduate students of the Faculty of Computers and Information, Cairo University, Feb. 2005, <http://www.fci-cu.edu.eg/examsresult/>.
- l- Cairo University – Open University E-Learning Center (TEMPUS Project)
- m- Egypt, June 2004 <http://www.h-elmahdy.net/eleg/>
- n- Cairo University – FCI-Dean follow-up visitors (using PHP+MYSQL)
- o- Egypt, Sept 2004.... <http://www.fci-cu.edu.eg/fcicu/>
- p- Ain Shams University – From Oct. 2002 till Mar 2004, <http://asunet.shams.eun.eg/>
- q- The Faculty of Computer and Information Sciences, Ain Shams University, including the results of all grades. <http://asunet.shams.eun.eg/fcis.htm>
- r- The First International Conference on Intelligent Computing and Information Systems, Cairo, Egypt, June 2002 <http://www.fcisainshams.net/icicis2002>

5- Supervising B.Sc. Graduation Projects :

Virtual Dressing Room (Using 3D CaM)
 Voice over IP, Video over IP, BlueTooth Server, WAP site of FCI.
 Doctor Online, Middle East Crises Management, Arabic Web Browser.
 Hardware Implementation of Encryption/Decryption Algorithms.
 Pharmacy Online, Smart Map, I-University, I-Library.
 E-World Cup 2010, WebCam Service Providing, E-Service Disk.
 E-Export Center, E-Live Business, Arabic Closed Caption.
 Distance Learning, Egyptian Antivirus, Video in demand.
 E-Hospital, Arabic Search Engine, LAN Monitoring.
 E-Press Publishing Center, Voice Over IP.
 Radio Frequency Identification Application.
 WebCam Streaming, VoiceXML, Remote Voice Command Thru Mobile
 Multimedia based tele-operation, Mobile Agents.

6- Supervising Preliminary M Sc. Projects :

Evolution of Secured E-Commerce.
 Arabic Closed Caption.
 LAN Monitoring.

7- Managing Computer Systems Teams :

Developing Computer Systems (in the Egyptian Army – During 20 years service):

Project 1 : Systems Transfer (Programs and data) from MVAX (DSM-11 database) into Oracle working on Alpha server under UNIX (Dealing with Arabic Problems) in 1999.
 Project 2 : Preparing documents to be copied into Microfilm media in 1999.
 Project 3 : System Transfer from VSAM files into Data Base 2 Management System 1990.

8- System Analysis, Design and Implementation (Sharing with others):

- a- Army Master Data File (Catalog System).
- b- Foreign Military Sale System.
- c- Shipment Tracking System.
- d- Vehicles Usage Planning

9- Soft Skills:

Lecturing, Reporting, Speeches, TV Interviewing, Blogging, Heading National/International Teams (Developing and Conferencing).

10– Membership of Scientific Organizations:

- 1- The Egyptian Engineers Syndicate (Consultant Engineer).
- 2- The Egyptian Society of Software Engineers.
- 3- Upsilon Pi Epsilon (USA).
- 4- Order of The Engineer (USA).

11– International/National Awards:

- 1- Hesham has been nominated to get “The King Faisal International Prize for Islamic Studies,” 1993.

- 2- Hesham has been included in the 2006-2007 (9th.) Edition of Who's Who in Science and Engineering.
- 3- Hesham has been included in the Outstanding Scientists of The 21st. Century, Cambridge, UK, 2007.
- 4- Hesham has been nominated to Cairo University Prize in Computer Science in 2007.
- 5- Hesham has been included in the 2009 (26th.) Edition of Who's Who in The World.
- 6- Hesham was awarded the prize of "The Best Innovative Ideas to Develop Cairo Universities" in August 2009.
- 7- Hesham got the Medal of the Professor of the Year 2011 from Cairo University Club of the Faculty Members.
- 8- Hesham got the Medal of the Professor of the Year 2012 from Cairo University Club of the Faculty Members.
- 9- Hesham was selected as THE BEST INFORMATION TECHNOLOGY PROFESSOR OF AFRICA by THE AFRICA EDUCATION LEADERSHIP AWARDS | 12th DECEMBER 2012 | MAURITIUS.

12– Advising Professional Teams:

- 1- Super Power Team (Scientific Thinking Team of the FCI).
- 2- Summer Training of the Third Level of FCI.

References:

- 1- Prof. Ahmed M. Hamad, The President of British University in Egypt.
- 2- Prof. Hoda M. Onsi, The vice Dean of the Faculty of Computers & Information, Cairo University.
- 3- Prof. Mohamed F. Tolba, The Ex-Vice President of Ain Shams University.
- 4- Prof. AbdAllah Eltattawy, The Ex-Vice President of Cairo University