C.V.

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

Religion : Moslem.

Address : 9215 Hay Elashgar, Ganob Seen, Elmokatam, Cairo.
   or 5 Dr Ahmed Zewail Street, Cairo University Post Office, 12613, Giza.

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Marital Status : Married and has 3 sons.

Birth Day : September 16, 1958.

Research Group Founder: Egyptian Drones Research Group.

Current Position :

1. Ex-Vice Dean of The Society Service and Community Development Faculty of Computers and Artificial Intelligence (FCAI) Cairo University, Giza, Egypt (Since January 2017 to July 31st., 2019).

2. Professor Emeritus of Information Technology Department, FCAI Cairo University, Giza, Egypt starting from September 16th., 2018.

3. Professor and Chair of Information Technology Department, FCAI Cairo University, Giza, Egypt (from November 2014 to September 2017).

4. FCAI Scientific Associations Advisor (since Jan. 2007).

5. Computer Sciences and Information Systems Consultant to some Tempus Projects (Assuit University), HEEPF Projects in Cairo University and United Nations Developing Project.

6. 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 Avicinna 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 Almaktby, 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 Notes:

- 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.
- Th Learning News site selected Hesham as one top 100 Africa's Movers and Shakers in Corporate Online Learning 2018. Hesham way Number 84 as a Champion of e-learning within Cairo University for the cast 15 year.⸻". https://learningnews.com/news/bob-little-press-pr/2018/africas-movers-and-shakers-in-corporate-online-learning-2018#

Publications:

1. **Hesham N. Elmahdy**, "**A New Triggering Method of IoT Controllers**," accepted in *The Proceedings of the 1st. International Conference on Scientific Research (ICSR'23)*, pp: 1-10, Jerash University, Jordan23- 25 August 2023**.**

2. **Hesham N. Elmahdy**, Mahmoud Gamal, Mahinaz Abdalla, Nada Emad, Nada Mousa, Rahma Ahmed and Saad Ahmed, "**Improving Object Detection in Unmanned Guard Vehicles (UGV)**," under review in *the Seventh International Undergraduate Research Conference (2023) of The Military Technical College*, pp: 1-17, July 15 - 17, 2023**. (B.Sc. Graduation Project).**

3. **Hesham N. Elmahdy**, "**Improving the Performance of IoT Bidirectional Visitor Counter (A Novel Practical Framework)**," *International Journal of Research in Academic World-IJRAW*, Vol. 2, No. 1, pp: 1-12, January 2023.

4. **Hesham N. Elmahdy**, "**A New Sorting Algorithm for Integer Values (Array Sorting Algorithm),**" The *Proceedings of the Interdisciplinary Conference on Mechanics, Computers and Electrics (ICMECE 2022),* pp: 1-7, 6-7 October 2022, Barcelona, Spain 2022.

5. **Hesham N. Elmahdy, "Improving Performance of The IoT Bidirectional Visitor Counter (A Novel Practical Framework)**," *The Proceedings of The Twelfth International and Communication Systems (ICICS 2021)*, pp: 1-5, Valencia, Spain, May 24-26, 2022   .

6. **Hesham N. Elmahdy**, Shereen Yousef Mohamed, Mohamed Hamed N. Taha and Hany Mohamed Mohieddin Harb, "**A Proposed Load Balancing Algorithm Over Cloud Computing (Balanced Throttled)**," *the International Journal of Recent Technology and Engineering (IJRTE),* ISSN 2277-3878 ،vol. 10, no. 2, July 2021.doi: https://doi.org/10.35940/ijrte.2277-3878

7. **Hesham N. Elmahdy**, M. A. Kotb, Hadeel Mohamed Seif El Dein, K. W. Y. Rjoob, and Mohammed Ahmed Refaey, "**The Machine Learned Stethoscope Provides Accurate Operator Independent Diagnosis of Chest Disease**", _Medical Devices: Evidence and Research_, vol. 13, pp. 13—22, 2020.

8. **Hesham N. Elmahdy**, Sanaa Taha, Xuemin Shen and Mayada AlMeghari, "**A Proposed Authentication and Group-Key Distribution Model for DWS Framework**," _Egyptian Informatics Journal, Elsevier_, vol. 3, no. 3, pp: 1-34, 2020.

9. **Elmahdy, H. N.,** A. F. Khalifa, and E. Badr, "**Lightweight model for real-time human detection on edge devices**", _Neural Computing and Applications_, vol. 33, issue 2, pp. 1-23, 2020.

10. **Elmahdy, H. N.,** M. T. Saleh, and M. W. A. Shalaby, "**Modified Arnold's Cat Map-RC4 Encryption Technique for Medical Images**", _Egyptian Computer Science Journal_, vol. 44, issue 2, pp. 11-23, 2020.

11. **Elmahdy, H. N.,** S. Taha, X. Shen, and M. AlMeghari, "**A Proposed Authentication and Group-Key Distribution Model for DWS Framework**", _Egyptian Informatics Journal_, vol. 20, issue 3, pp. 1-34, 2020.

12. Heba Sayed, **Hesham N. Elmahdy**, Fathy Amer, and Sherif, Shaheen, "**A Novel Framework to Improve Secure Digital Library at Cloud Environment,**" _International Journal of Computer Science and Information Security_, Vol. 17 No. 5, pp.: 1-15 June 2019.

13. Ali Farouk Khalifa Eman Badr and **Hesham N. Elmahdy**, "**A Survey on Human Detection Surveillance Systems for Raspberry Pi**," _Image and Vision Computing_, vol. 85, pp: 1-18, May 2019. https://www.sciencedirect.com/science/article/pii/S0262885619300198

14. F. A. Khalifa, and E. Badr and **Hesham Nabih Elmahdy** "A Survey on Human Detection Surveillance Systems for Raspberry Pi," _Image and Vision Computing, Elsevier_, vol. 85, no. 1, pp. 1-32, 2019.

15. D. A. Shaaban, M. H. Saad, A. H. Madian,, N. E. M. Khalifa and **Hesham Nabih Elmahdy**, "**Medical Image Compression based on Region of Interest**", _The Proceedings of the International Conference in Communication, Management, and Information Technology (ICCMIT'19)_, Vienna, Austria, 26-28 Mar, 2019.

16. Khaled Rjoob, Magd Ahmed Kotb and **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.

17. **Elmahdy, H. N.,** K. Rjoob, A. Kotb, C. W. Shake, F. E. Z. Mostafa, and M. A. Refaey, "**Recognition of Heart Murmur Based on Machine Learning and Visual Based Analysis of Phonocardiography**", _Intelligent Computing. SAI 2018. Advances in Intelligent Systems and Computing_, vol. 857, issue Springer, London, UK, pp. 1-11, 2018.

18. **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.

19. **Elmahdy, H. N.,** W. Mourad, B. B. S. Tawfik, I. A. Saroit, and S. E. arek habian, "**Improving Wireless Sensor Networks Lifetime**", *The Egyptian Computer Science Journal (ESC),* vol. 40, issue 1, pp. 1-9, 2016.

20. **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.

21. **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.

22. **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.

23. **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, Jordon, doi:10.15849/icit.2015.0024, pp. 164-170, May 12-14, 2015.

24. **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.

25. **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=1e5bfffa-da6f-11e5-be23-00000aab0f27&acdnat=1456260829_8766ef384a9bd68747c144eda78fa0c2

26. **Hesham N. Elmahdy**, Imane A. Saroat, 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.

27. 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.

28. 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.

29. 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

30. 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.

31. 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.

32. 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.

33. 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.

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80. **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.

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Registering for Getting Patents:

1- Smart Medical Stethoscope in May 2015 (Local Patent#: 29425).
2- Electricity Ritualization Device May 2018.
3- A Protection Stunner Device May 2018.
4- Mute and Dump People Phone.
5- Azan Mowahad Automation using IoT.

Past Experience:

1- Teaching Computer Science Courses:

Course Name	Institution	Semesters + Audience
Advance IT Research Topics IT623	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	From 2019. Till now
Web Programming IT371	Faculty of Computers and Information, Assuit University	Fall 2019
Introduction to Multimedia Technology MM301	Faculty of Computers and Information, Assuit University	Fall 2019
Introduction to Artificial Intelligence	Misr University of Science and Technology (MUST)	1. Fall 2018.
Advanced Research Topics in Information Technology-1 -> IT Scientific Research Development (IT751)	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	1.2015, 2016, 2017, 2018, 2019 the two semesters, 2020 (Second semester) 2. 2013-2014 (Second semester) 3. 2012-2013 (Second semester)
Cloud Infrastructure Services CIS603	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	from 2016 to 2020 to undergraduate students and post graduate students at FCI Cairo University
Advanced Research Topics in Information Technology CIS608	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	from 2016 to 2019
Internet Technology (IT223)	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad+ 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)	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	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)	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	1. 2011-2012 (first semester) 2. 2010-2011 (first semester)
iOS Real Time Control Applications	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	1. 2011-2012 (second semester) planed 2. 2010-2011 (second semester)
Fuzzy Logic	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU) Post Grad)	1. 2009-2010
Theory of Information Systems Design	Faculty of Computers and Information, Assuit University Pre-Master (by Video Conference)	1. 2009-2010 2. 2008-2009 3. 2007-2008
E-Commerce	Faculty of Computers and Information, Assuit University 4th. year (by Video Conference)	1. 2009-2010
Information Management Systems	Sadat Academy	1. 2007-2008 first semester – Third Level MIS
Virtual Reality (IT431)	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-CU)	1. 2006-2007 second semester – Fourth year IT
Computer Graphics (IT331)	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-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	Faculty of Computer and Artificial Intelligence, Cairo University (FCAI-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
Information Systems Management (F811)	The Arab Academy for Science, Technology, and Maritime Transport	Fall 2006, Spring 2006, Spring 2005, Fall 2005
Multimedia (EF715)	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).	The International Academy for Media Science (IAMS)	1. Spring 2005.
E-Commerce	Misr University of Science and Technology	1. Fall 2004.
Internet Technology	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	FCAI-CU	1. Second 2003-2004 - Third Year (IS). 2. Second 2002-2003 - Third Year (IS).
Cognition	FCAI-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)	FCIS-ASU	1. Second 2002-2003 (Fourth Year-IS). 2. Second 2001-2002 (Fourth Year-IS).
Advanced Multimedia	FCIS-ASU	1. First 2002-2003 (Post Graduate-IS). 2. First 2001-2002 (Post Graduate-IS).
Technical Report Writing	FCIS-ASU	1. Second 2002-2003 – Second Year. 2. Second 2001- 2002 – Second Year.
System Analysis and Design	FCIS-ASU	1. Second 2001-2002 (Post Graduate – Faculty of Arts). 2. First 2001-2002.
System Analysis and Design	October 6 University	1. Spring 2002 (Faculty of Engineering). 2. Spring 2002 (Institute of Engineering).
Computer Graphics	October 6 University	1. Fall 2001 (Faculty of Engineering). 2. Fall 2001 (Institute of Engineering).
Operating Systems	The Institute of Statistics Studies an	1. First 2000 – 2001 Post Graduate.

	Researches, Cairo University	
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. 4. Spring 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 eLearning using MOODLE
- b- Introduction to Computers and Information Technology.
- c- Computer Graphics.
- d- Internet Technology.
- e- Multimedia.
- f- 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 :

Smart City
Smart Car
Smart Home
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.
The Project "Sign Language Telephony " got a prize in CairoICT 2022

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 many years.
3- Internship for The Cloud Computing Professional Master students.

References:

1- Prof. Ahmed M. Hamad, The Ex-Presidant of British University in Egypt.
2- Prof. Said Yahia Daw, The Ex-Vice President of Cairo University.
3- Prof. Mohamed F. Tolba, The Ex-Vice President of Ain Shams University.
4- Prof. Elsayed Tag Eldeen, The Ex-Dean of The Faculty of Engineering, Cairo University.