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Assistant Minister of Higher Education and Scintific Research

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Career Objective

Seeking a challenging position in a warehouse where my stock-picking skills can be put to good use in Research, strategic management, Planning, business development.

Education **Cairo University, Egypt**

Ph.D.

Electronics & Communications Dept. Faculty of Engineering.

1996 – 2001

M.Sc.

Electronics & Communications Dept. Faculty of Engineering.

1993 – 1996

B.Sc.

Electronics & Communications Dept. Faculty of Engineering.

1986 – 1991

Certificates

- Innovation Guide, IMP³rove academy coaching program, EU
- Intel Ideation camp coaching
- Soft skills workshop
- Management course , IESA Univ. Spain
- CCNA Certification

2013

2013

2005

2006

2002 – 2003

Research Interest

- ✓ eContent
- ✓ Image processing, Compression, Enhancement.
- ✓ Video processing, Compression, indexing, retrieval.
- ✓ Interactive Video on Demand.
- ✓ Pattern Recognition.
- ✓ Mobile technology and applications
- ✓ VR/AR/ MR
- ✓ IoT

Awards

- **Best Research paper in 2019, Cogent engineering Journal** 2019
- **The Golden Medal, The 5th Cairo Innovate event** 2018
In tourism track for "Virtual tourism project"
- **The Annual prize of Scientific Excellence , ERI** 2018
For the best effort in Research paper publishing developing projects
- **The Annual prize of Scientific Excellence, ERI** 2017
For the best effort in Research paper publishing developing projects
- **The prize of Arab Federation of Library and Information** 2009
for the best project of the year. Dar Elwathaek project
- **The Best Ph.D. thesis** 2006
Helwan Univ., Cairo, Egypt. (under my supervision)
- **Honor certificates for teaching and project supervision** 1997:2002
From American University in Cairo, CACE, for more than 12 terms

National Strategies

Main duties:

- *Putting the Vision, Mission, Goals*
- *Analyzing the current situation*
- *Setting the policy*
- *Setting the road map for the directions*
- *Structuring Initiatives and programs driven from the strategy goals*

Strategy 1: "INNOVATION IN MOBILE FOR DEVELOPMENT", Ministry of Scientific Research

Strategy 2: "KSA mobile strategy", KSA

Strategy 3: "ERI Strategy and Road map for 2030"

Strategy 4: "Human Capacity Building Scalability" Master Plan, MCIT

Strategy 5: "Egypt Government Cloud Computing", MCIT

Strategy 6: "Strategic Plan for eContent", MCIT

Strategy 7: "Mobile for Development", MCIT

Consultations (examples)

- *ITU (International Telecommunication Union*
- **Ministries:** *Education, tourism, Culture, Electricity, Information, Foreign Affairs, Agriculture, Luxor Governorate*
- *General Authority for Educational Building*
- *EL-Nasr Car manufacturing*
- *Mobil Oil factory*
- *Traffic control systems (el-Giza)*
- *Traffic Control systems (Elsharkeyya)*
- *Gaz distribution system*

2017-2019

2003-2013

1996

1998

2000

2011

2012

Current and previous jobs I occupied

Appointments

ERI (Electronics Research Institute)

Main duties:

- **Research and practical projects development and implementation**
- **Research and innovations**
- **Consultations**
- **Cooperation with the universities**
- **Training and workshop mastering**
- **Technology transfer activities**
- **Thesis supervisions**
- **Fund Raising**
- **Conferences and Workshops organization**
- **Teaching and training**

1. **Associate Professor, ERI, Ministry of Higher Education and scientific research**

2. *Researcher, ERI, Ministry of scientific research.*

3. *Assistant Researcher, ERI, Ministry of scientific research.*

4. *Research Assistant, ERI, Ministry of scientific research.*

5. **Head of Business Unit**

6. *Head of Technical office, ERI president*

7. *Founder and Head of technology Transfer office, TICO*

2011- now

2001 -2011

1996-2001

1993-1996

2016 - Now

2012-2016

2013-2015

Appointments

continue

MCIT (Ministry of Comm. And Information Tech.)

Main duties:

- Strategies and master plans development, Consultations,
- Cooperation with other ministries,
- Training and workshop mastering,
- Project planning and management,
- System analysis,
- Protocols formulation,
- International agreement management.
- Competition and hackathon Judge

1. *Head of Research and Innovation Dept. (ITI) (MCIT)*
2. *Technology Manager, Technology Innovation and Entrepreneurship Center (TIEC)*
3. *Acting manager MSCC, Technology Innovation and Entrepreneurship Center (TIEC)(MCIT)*
4. *eContent department manager, MCIT*
5. *IT projects manager, MCIT*

2014- Now

2013--2014

2012- 2013

2008-2012

2002–2008

AUC (American University in Cairo)

Main duties:

- Consultations
- Curriculums development
- Teaching
- System administration
- Projects supervision

1. *Instructor at AUC-CACE-CSD, BSD.*
2. *Network Administrator AUC-CACE-CSD.*
3. *Technical Advisor AUC-CACE-CSD.*

1998-2008

1996-1999

1999-2002

Others

1. *Manager of training center in El-Safwa Co.*
2. *Head of the Sales & Hardware Department, El-Safwa Co.*
3. *R&D engineer in “WISSAM for designing and manufacturing electronic systems”.*

1995-1996

1996-1998

1992-1995

Professional Activities (Examples)

MCIT/TIEC/ITI

- | | |
|---|------------|
| 1. <i>Managing freelancing initiative</i> | 2014-2015 |
| 2. <i>Standardize ITI tracks according to SFIA</i> | 2014-2015 |
| 3. <i>Managing freelancing initiative</i> | 2014-2015 |
| 4. <i>National archive Digitization</i> | 2008-2011 |
| 5. <i>Mobile application task force vice president</i> | 2013-2014 |
| 6. <i>Microsoft Governmental agreement coordinator</i> | 2006-2008 |
| 7. <i>Building a map for the player of the technology clusters</i> | 2005-2008 |
| 8. <i>Helping in planning and establishing universal mobile lab.</i> | 2013 |
| 9. <i>Launching Egypt Innovate: Mobile Award</i> | 2012 |
| 10. <i>Building Cloud Computing Lab</i> | 2012 |
| 11. <i>Preparing for Cloud Computing Academy</i> | 2013 |
| 12. <i>Evaluation of ITAC-ITIDA proposals</i> | 2010 |
| 13. <i>Judging IBTICAR competition – TIEC-MCIT</i> | 2012 |
| 14. <i>Referee in National eContent competition for couple of years</i> | 2005, 2006 |
| 15. <i>Launching Arabic eContent Initiative</i> | 2005 |
| 16. <i>Member in the committee for evaluating the final projects for ministry of communications and information training system</i> | 2002 |

ERI

1993-2019

1. *Technical Study preparation for Intranet for the Higher council for Research Centers and Institute*
 2. *Technical study preparation for Robot track car controlled remotely*
 3. *Technical study for replacing analog computer control system with digital computer control system*
 4. *Technical consultation for Elsharkeya electronic traffic monitoring*
 5. *Member in the committee for evaluating the proposals in an Egyptian competition in the field of IT technology, (Hardware, Software and informatics).*
 6. *Sponsored by the Egyptian Society for PC's Technologies Workers.*
 7. *Member in the many committees of describing technical specifications for many equipment and laboratory preparation*
 8. *Member in many committees for evaluating the products, software and hardware*
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Research Projects (Examples)

- *Efficient Media Digital Library Design and Implementation of Summarized Video based on Scalable Video Coding for H.264 (MDLSS)*
- *"Virtour – New Paradigm for virtual tour" ASRT*
- *" A Low Cost Video and Image Compression Framework". Funded NSF*
- *NILESAT receiver (video compression group) Funded ERI.*
- *Building Security algorithm using DSP and FPGA. Pattern recognition (Okrania).*

2016-2019

1998-2000

2007-2009

Thesis Supervision

Ph.D.

- ✓ *"New Adaptive Technique for Human Body Motion Detection and Face Recognition based on Wavelet Transform"*
- ✓ *"Interactive Video On Demand System over Long Range Ethernet"*
- ✓ *"Mines Detection and classification"*
- ✓ *"Video Streaming over Wireless Networks"*

M.Sc.

- ✓ *"Fusion Algorithm for Face Detection And Recognition"*
- ✓ *"New Video streaming technique over mobile networks"*
- ✓ *"A Novel Techniques for Media Asset Management performance Enhancement"*
- ✓ *"Segmentation for magnetic resonance images of the brain"*

National Projects (Examples)

- **Arabic eContent Initiative**
Building a portal on the internet having more than 15000 **digitized** titles (www.fekr-rama.com) with Digital Rights management (DRM) and ePayment (VISA, Scratch Card, etc.), digitizing contents (books, software, movies, media, etc...)
- **News portal for Egyptian radio and TV union, ERTU** www.egynews.net.
Building a portal for online news service, with news library and online streaming, It was ranked No. 1 news portal in 2010-2011
- **National Archive of Egypt (NAE)**
It was a digitization and archiving project for 90 million documents
Won "The prize of Arab Federation of Library and Information", 2009
- **Community and knowledge generation portal**
www.fekrzad.com , A portal serving the Community based on generating competitions between preparatory schools students.
- **Luxor governorate Portal** www.luxorportal.com
- **Sound and Light company portal** www.soundandlight.com.eg
- **Ministry of agriculture**
Building information system for the (Economic activity sector).
- **Ministry of Foreign Affairs: Study** for building a portal to connect Egyptian consulates with the ministry of Foreign Affairs.

- **Smart School network**
Equipping 100 schools as a model for connecting Administration , teachers, Student and parent together with modern educational tools and portable classroom (UNDP)
- **Irrigation and drainage system**
As a project manager for this project for a modular farm in Elsharkeyya -
Electrocard
- **CAD/CAM system in KAHR EL-DAWWAR factory**
- **Expert system for plants disease sponsored by the USAID. (ERI)**
- **Data logging systems using programmable logic control (PLC) STIA**

Different work experience” Wissam Co.

for designing and manufacturing electronic systems

1992-1995

- ✓ Data logging system (in AMICO tenth of RAMADAN factory).
- ✓ Parking control system (in El-Gezira sports club).
- ✓ Production line control in steel factory (INCOSTEEL factory).
- ✓ Moving messages.
- ✓ Currency displays.
- ✓ Elevator displays.
- ✓ Queuing system.

International cooperation

Conferences , workshops , seminars, training, Site visits in:
UK, USA, France, Italy, Spain, Greece, Turkey, South Korea, United Arab of Emirates,
Sudan, Netherland and China

Teaching Experience

(Examples)

Teaching Experience

in the field of signal processing, computer systems and networking in many universities, academies as AUC, FUC, El-Obour academy, Elmadina academy, 6 of October university

And others:

Ministry of Finance ,Ministry of Education, Ministry of Local Development, Middle East Advisory Group, IDSC EGYfit, TRI –TECH, TeleWeb

1. System Design, Basic Internet Services.
2. HTML. , DHTML, ASP
3. Web technologies, Computer internetworking.
4. Corporate Intranet.
5. LAN & WAN concepts and CCNA, TCP/IP protocol
6. Windows server administration
7. Telecommunication and networking.
8. Macromedia FLASH, Multimedia applications, Computer graphics
9. Computer Peripherals, Operating Systems, IBM PC maintenance
10. Database programming (Fundamental – Advanced)
11. Software Engineering
12. E-Commerce
13. Computer Applications in Business
14. Video and Image processing

Seminars

(Examples)

1. *Mobile applications ecosystem*
2. *Mobile technology trends*
3. *Portal Site Design & Implementation AUC*
4. *Arabic eContent Initiative, Central Library, Cairo University.*
5. *Arabic eContent Initiative, Cairo International book fair.*
6. *Software Maintenance AUC*
7. *HTML design tools ERI*
8. *IBM PC Troubleshooting AUC*

2014
2012
2000
2009
2008
1999
1999
1997

Equipments, Devices, Systems

Example of equipments, devices and system I am working with in different projects

1. *Microcontroller based kits (Texas & Zilog Evaluation kit).*
2. *Allen Bradley PLC systems.*
3. *Allen Bradley scanner on the IBM PC (6008 SI).*
4. *Laboratory Equipments (Logic analyzer, Oscilloscope, Function Generator, Frequency counter, the IBM PC cards such as “EPROM Programmer, Emulators, Logic analyzer, data Acquisition Systems, Sound systems, Video systems).*

Publications *Book chapter: Mobile Government in Egypt:
(Examples) Opportunities and Challenges
in the book: E-Government Implementation and Practice in
Developing Countries (2013)*

Scientific papers

1. H. Farouk, S. Mashali, M. Rashwan, A. Nassar, "A New Fast Adaptive Compression Technique For Color Image Compression", Application of digital Image Processing XIX, SPIE, 28 July to 2 August 1996.
2. H. Farouk, S. Mashali, M. Rashwan, A. Nassar, "New fast adaptive matching criterion for block-based motion compensation", Application of Digital Image Processing XXIII, SPIE, 30 July to 4 Aug 2000.
3. H. Farouk, S. Mashali, M. Rashwan, A. Nassar, "Fast Memorized Search Technique for Block-Based Motion Estimation", Applications of Digital Image Processing XXIV, SPIE, 29 July to 3 Aug 2001.
4. H. Farouk, S. Mashali, M. Rashwan, A. Nassar, "Video Compression Improvements Based On Camera Motion" , IEEE ISSPIT Dec. 28-30, 2001.
5. H. Farouk, H. El_Salamouny, A. Darweesh, "3D Human Body Motion Detection and Tracking in Video", The 14th. International Conference on Applied Simulation and Modeling. ,June pp. 120-125, Benalamadena, Spain. , June 15-17, 2005
6. H. Farouk, Darweesh, . Ali, Hany M. El-Salamony, "Automatic Face Detection and Matching in Video and Static Images using Wavelets Decomposition", Egyptian Computer Science Journal, Vol. 27, No. 3, July 2005.
7. H. Farouk, S. Mashali, M. Rashwan, "Efficient Compression Technique for Panorama Camera Motion", WSEAS, Turkey, June, 2006.
8. H. Farouk, R. Mohamed, "A Comparative Study for Open Document Formats ", 2nd International Conference on Universal digital Library, .ICUDEL., pp. 195-201, Alexandria, Egypt, 17-19 November, 2006.
9. H. Farouk, A. Yehia, "Steps Towards The Arabian Digital Information Society", Second Arabic Meeting for Information and Libraries, Dec, 2007
10. H. Farouk, "Adaptive I frame Positioning For MPEG Bit Rate Improvement", 11th WSEAS CSCC. Agios Nikolaos, Crete Island, Greece, July 26-28, 2007.
11. H. Farouk, "MPEG Bit Rate Improvement Using Adaptive GOP,"International Journal of Circuits, Systems and Signal Processing, pp 8- 11, Issue 1, Vol. 1, 2007.
12. H. M. Khalil, H. Farouk, D.A Said, "An Efficient automated Detection and matching technique for Landmines in IR images",Journal of Alazhar University Engineering Sector, JAUES, April 2008.
13. H. Farouk, E. Elshimy, S. Ahmed, I. Ismail, "Interactive Video On Demand System With Self-detection And Recovering From Failures: Design And Implementation", Journal of Alazhar University Engineering Sector, JAUES, April 2008.
14. H. Farouk, E. Elshimy, S. Ahmed, I. Ismail, "A Novel Approach for Resources Self-Detection and Recovering from Failures in Video-on- Demand systems", Egyptian Informatics Journal, Issue 1,2, Vol. 9, pp. 395-405, December 2008.
15. H. Farouk et al, "A DESIGN FOR AN FPGA IMPLEMENTATION OF RIJNDAEL CIPHER", Journal of Programmable Devices, Circuits, and Systems, International Congress for Global Science and Technology (ICGST), 2009.
16. H. Farouk, A. H. Salamouny, "Digital Library Creation Based On Wavelet Coefficients for Video Stream Indexing and Retrieving", 2nd International Conference on Signal Processing Systems (ICSPS), V1, pp. 158-162, Dalian China, 5-7 July, 2010
17. H. Farouk, A. Tobal, "An Efficient Detection and Classification Method for Landmine Types Based on IR Images Using Neural Network", International Journal of Geology, pp. 91-95, Issue 1, Volume 4, 2010.

18. H. Farouk, et al, "High Precision Face Detection and Recognition based on Fusion of Discernment Techniques", ICGST International Journal on Graphics, Vision and Image Processing , GVIP, Issue 2, Vol. 11, pp. 31- 39, April 2011
19. H. Farouk, B. Amin, A. Mostafa, "A Novel Design for Smart App Firewall Framework" ,Complexity, Informatics and Cybernetics: IMCIC 2014, Orlando, Florida, USA, March 4 - 7, 2014.
20. H. Farouk, M. Elnwawy, B. Amin, "Innovation Management Benchmarking for ICT Firms in Egypt", IAMOT 2014, Washington DC, USA, 22-26 May, 2014.
21. Hafez Fouad, Hesham Farouk, "Design And Implementation Of Video Conferencing Cloud-Based Network Using VOIP For Remote Health Monitoring In Telemedicine System", "International Journal of Computer Informatics & Technological Engineering" (IJCITE), VOL 1, ISSUE 1, MARCH- APRIL, 2014.
22. H. Farouk, K. EIDahshan, and A. Abozeid, The State of the Art of VideoSummarization for Mobile Devices: Review Article, Graphics, Vision and Image Processing GVIP, volume(14), issue(2), pages. 37-50, 2014.
23. H. Farouk, K. A. EIDahshan, and A. Abozeid, "The State of the Art of Video Summarization for Mobile Devices: Review Article", Graphics, Vision and Image Processing GVIP, volume (14), issue (2), pages. 37-50, 2014.
24. Hafez Fouad, Hesham Farouk, "Design and Implementation of Wireless Sensors Network and Cloud Based Telemedicine System for Rural Clinics and Health Centers", International Journal of Scientific & Engineering Research (IJSER), Volume 6, Issue 2, February 2015.
25. H. Farouk, K. A. EIDahshan, and A. Abozeid, "Video Summarization for Mobile devices based on Visual Saliency Detection", Advances in Computer Related Research Work, Mar 23, 2015.
26. H. Farouk et al, "Efficient Media Digital Library Design and Implementation of Summarized Video based on Scalable Video Coding for H.264 (MDLSS)", The Seventh International Conference on Advances in Databases, Knowledge, and Data Applications, DBKDA, 2015, Rome, Italy, May 24 - 29.
27. Hesham Farouk, Kamal A. EIDahshan, Amr Abozeid, "Effective and Efficient Video Summarization Approach for Mobile Devices", International Journal of Interactive Mobile Technologies. IJIM, ISSN: 1865-7923, Vol 10, No 1, 2016
28. Ibrahim E. Ziedan, Shimaa Mohamed, Hesham Farouk, "Comparative Study on Human Identification using Ear Biometrics", International Journal of Computer Science and Information Security (IJCSIS), Vol. 14, No. 11, November 2016.
29. Amr Abo Zaid, Hesham Farouk, Kamal Eldahshan, "Scalable Video Summarization based on Visual Attention Model",CONTENT2018, The Tenth International Conference on Creative Content Technologies, Barcelona, Spain, February, 2018
30. Mohamed Kamel, Hesham Farouk and Samia Mashali, "A Novel approach for Fairness Video Streaming and Processing in Multi-Users Systems", International Journal of Electrical systems and Information Technology, JESIT, ISSN:2314-7172, July, 2019, Accepted