

CURRICULUM VITAE



Date: Jan, 2013

I. GENERAL

Name	Usama Sayed Mohamed	
Date of Birth Place of Birth Nationality	Jan. 28, 1964 Beni-Swief, Egypt Egyptian	
Sex	Male	
Office	Department of Electrical & Electronics Engineering, Faculty of Engineering, Assiut University, Assiut 71516, Egypt E-mail: Usama@aun.edu.eg Fax: + 20-88-2332553 (Office) Phone: + 20-88-2411779 (Office) + 20-88-2359929 (Home) +2-010-1346626 (Mobile) Web site: www.aun.edu.eg	
Present Occupation	Professor	
Academic Qualifications	B. Sc.	Electrical & Electronics Engineering, Assiut University, May 1985, Average Grade: Very Good, <i>B.Sc. Project</i> : Grade of Distinction.
	M. Sc.	Electrical Engineering, Assiut University, Egypt, January 1994, Title : “ <i>Voice Frequency Band Compression Through Digital Signal Processing</i> ”.
	Ph. D	Electrical Engineering, Czech Technical University in Prague, Prague, July 2000, Title : “ <i>A Novel Motion Estimation Approach With Higher Accuracy For Video Sequences</i> ”.

II. EMPLOYMENT HISTORY AND EXPERIENCE

1. Egyptian Army Forces (from Oct. 16, 1985 to April 1, 1988)
2. Demonstrator, Electrical & Electronics Eng. Dept., Assiut University

- (from April 1, 1988 to June 15, 1994)
3. Assistant Lecturer, Electrical & Electronics Eng. Dept., Assiut University
(from June 15, 1994 to Nov. 28, 2000)
 4. Assistant professor Electrical & Electronics Eng. Dept., Assiut University
(from Nov. 28, 2000 till 2006)
 5. Associate professor Electrical & Electronics Eng. Dept., Assiut University
(from 2006 till 2011)
 6. Research Assistant in Faculty of Elec. Eng., Dept. of Telecommunication, Czech
Technical University in Prague, Czech Republic.
(from Nov. 3, 2001 to April 29, 2002).
 7. Research Student in Faculty of Elec. Eng., Dept. of Telecommunication, Czech
Technical University in Prague, Czech Republic.
(from Sep. 1, 1997 to July 10, 2000).
 8. Part-Time Work as a Technical Engineer in the Following Private Training
Institutes:
International British Institute (IBI), Assiut Branch, (from April 1989-January 1993)
North Africa Company (NAC), Assiut Branch, (from April 1988-January 1990)
 9. Professor in the Electrical & Electronics Eng. Dept., Assiut University
(From 2011 till Now)
 10. Head of the Electrical & Electronics Eng. Dept., Assiut University
(From 2012 till Now)

III. TEACHING ACTIVITIES

SCIENTIFIC ACTIVITIES before Ph.D. :

I've assisted in teaching the following undergraduate courses:

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| 1. ELECTRONICS CIRCUITS | B.Sc. Electrical (1989-1995). |
| 2. ELECTRONICS MEASUREMENT | 3 rd. Year Electrical (1992). |
| 3. ELECTRICAL TESTING | 2 nd. Year Electrical(1989-1995) |
| 4. ELECTRICAL TESTING | 3 rd. Year Electrical(1988-1995) |
| 5. ELECTRONICS I | 1 st. Year Electrical (1989-1993). |
| 6. ELECTRONICS II | 2 nd. Year Electrical (1989-1994). |
| 7. ELECTRONICS III | 3 rd. Year Electrical (1990). |
| 8. SYSTEM ANALYSIS | 3 rd. Year Electrical (1994). |
| 9. ELECTRICAL TESTING | B.Sc. Electrical (1989-1995). |
| 10. ELECTRONICS CIRCUITS | 3 rd. Year Electrical (1989-1995). |
| 11. COMPUTER SCIENCE | Preparatory Year (1991-1994). |
| 12. PROCESS CONTROL | B.Sc. Electrical (1995). |
| 13. B.Sc. Project “ <i>Digital Storage Oscilloscope</i> ” (1988). | |
| 14. B.Sc. Project “ <i>Arabic Monochrome Card for the IBM-PC and APPLE-Circle computer</i> ” (1990). | |

SCIENTIFIC ACTIVITIES after Ph.D. :

- Currently, Supervising 20 M. Sc. and Ph.D. Students.
- Lecture: Digital Signal Processing (3rd and 4th year B.Sc. students)
- Lecture: Digital Exchange (4th year B.Sc. students)

- Lecture: Computer Interfacing (4th year *B.Sc.* students)
- Lecture: Integrated Services Digital Network “ISDN” (4th year *B.Sc.* students)
- Electrical Testing I, II, III, IV (1st, 2nd, 3rd and 4th year *B.Sc.* students)
- Lecture: Numerical Analysis (2nd year *B.Sc.* students)
- Lecture: Electronic Circuits (3rd year *B.Sc.* students)
- Lecture: Numerical Analysis (M. Sc. course)
- Lecture: Digital Telephony (M. Sc. course)
- Lecture: Digital Image Processing (M. Sc. course)
- Lecture: Digital Image and Video Coding (M. Sc. course)
- Supervision of the 4th year B.Sc. Project “*Frequency Band Compression*” (2001).
- Supervision of the 4th year B.Sc. Project “*Image Compression Based on Object Segmentation*” (2002)
- Supervision of the 4th year B.Sc. Project “*Study and Analysis of EEG signal*” (2003)
- Supervision of the 4th year B.Sc. Project “*Scalable Image Compression*” (2004)
- Supervision of the 4th year B.Sc. Project “*Image Compression Through Transform Coding Techniques*” (2004)
- Supervision of the 4th year B.Sc. Project “*Video Coding for wireless Communications*” (2005)
- Supervision of the 4th year B.Sc. Project “*Video over IP Technology*” (2006)
- Supervision of the 4th year B.Sc. Project “*Hardware implementation of Bluetooth Encryption Algorithm*” (2006)
- Supervision of the 4th year B.Sc. Project “*Hardware implementation of CDMA System*” (2007)
- Supervision of the 4th year B.Sc. Project “*Design and Implementation of Global Positioning (GPS) System*” (2008)
- Supervision of the 4th year B.Sc. Project “*Transmission of video signal over wireless LAN (WLAN)*” (2008)
- *Authorized a reference book for the undergraduate student with a title of Electronic Exchanges. Sept. 2003.*

IV. Research Activity

CONFERENCES ATTENDANCE

1. *Joint Conference on Information sciences JCIS, (CVPRIP'2000)*, Atlantic City, Feb.2000.
2. *International Seminar: Research in Telecommunication Technology (RTT'99)*, Prague, Sep. 1999
3. International conference on Telecommunications 2000, COFAX 2000, Bratislava, May 2000
4. *International Conference on Telecommunications and Signal Processing (TSP'99)*, Berno, CZ, Sept.1999.
5. International workshops on Signal Processing and Image Processing, IWSSIP 1999, Slovakia, June 1999.
6. International conference on Telecommunications (ICT'2000), Acapulco, Mexico, May 2000.

7. Workshop 2000, CTU in Prague, Feb. 2000.
 8. *International Conference on Programmable Devices and Systems (IFAC-PDS'2000)*, Ostrava, Feb.2000
 9. The 28th International Conference of Telecommunications and Signal Processing, Brno, Czech Republic, Sep. 2005
 10. The 10th International workshops on Signal Processing and Image Processing, IWSSIP 2003, Prague, Czech Republic, Sept. 2003
 11. The 7th IEEE International Conference on Intelligent Engineering Systems, INES 2003, Assiut, Egypt, march 2003.
 12. The 7th Al-Azhar Engineering International Conference, AEIC2003, Cairo, Egypt, April 2003.
 13. The 22nd National Radio Science Conference (NRSC'2005), in Arab Academy for Science, Technology and Maritime Transport (AASTMT), Cairo, Egypt, March 2005.
 14. The 4th International Conference on Information & Communications Technology (ICICT-06), Cairo, Egypt, Dec. 2006.
 15. The 2nd International Computer Engineering conference (ICENCO-06), Cairo, Egypt, Dec. 2006.
 16. *The 5th IEEE International Symposium on Signal Processing and Information Technology (IEEE ISSPIT 2007)*, Cairo, Egypt, December, 2007.
 17. The 5th International Conference on Information & Communications Technology (ICICT-07), Cairo, Egypt, Dec. 2007.
 18. The 9th International Engineering conference, Al-Azhar University, Cairo, Egypt, April 2007.
 19. The 24th National Radio Science Conference (NRSC-07), March 2007.
 20. The 2008 International Conference on Computer Engineering & Systems (ICCES'08), Nov. 2008.
 21. The international conference on Water and Waste, Assiut, Egypt, 2007.
 22. The International Conference on Mathematics & Information Security, Egypt, 2009.
 23. The 4th IEEE international workshop in Design and Test (IDT09), Riyadh, Saudia Arabia, 2009.
 24. The IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2010), Egypt, December 2010.
 25. The 29th National Radio Science Conference (NRSC-07), April 2012.
- * visitor to University of California In Santa Barbara (UCSB) (Dec. 1999-Jen. 2000) working in project with Prof. S. K. Mitra in his lab.
- * **A post-doctor for 6-month in Prague, Czech Republic (Nov. 2001- April 2002).**

Supervision of Undergraduate Projects

1. Video Coding Techniques for Wireless Communication Systems, 2005.
2. Building Block Simulation of CDMA System, 2005.
3. Image Compression through Transform Coding Techniques, 2006.
4. Image transmission over wireless communication channels 2008
5. Video over IP 2007.
6. Secured Home Automation 2009

7. Scalable Video Streaming over Mobile WiMAX 2010
8. Video Coding Techniques for Wireless Communication Systems, 2005.
9. Building Block Simulation of CDMA System, 2005.
10. Image Compression through Transform Coding Techniques, 2004.
11. Study and Analysis of EEG signal, 2003.
12. Adaptive Noise Canceller for Speech Signal, 2001.
13. Video Coding Techniques for Wireless Communication Systems, 2005.
14. Building Block Simulation of CDMA System, 2005.
15. Scalable Image compression Techniques, 2004.
16. Image Compression Based on Object Segmentation, 2003.
17. Frequency Band Compression for Speech Signal, 2001
18. Performance Evaluation of Medium Access Control Protocol in conjunction with Bandwidth Provision in WiMAX System, 2011.
19. Novel optimization test-tool for wireless communications networks, 2012.
20. XBee RF Smart wireless Power Meter and protection, 2013.
21. Smart UAV Quadcopter, 2013.
22. "Automatic Train Control System "Development and Simulation for High-Speed Railways, 2013.

M.Sc. and Ph.D. Thesis Supervision

- 1- A Robust Motion Estimation Approach for Video Sequences Based on Video Object Planes.
- 2- Wavelet Based Image and Video Coding for Wireless Communication Systems
- 3- Blind Signal Separation Based on Time and Frequency analysis
- 4- A New B_Spline Method for Digital Image Watermarking and Compression
- 5- New Approaches for Blind Source Separation in Nonlinear Mixing Models
- 6- Efficient and Robust Image Watermarking Approaches
- 7- Image and Video Coding Technique Based on Object Extraction
- 8- Image Classification and Retrieval using artificial neural networks
- 9- Signals Transmission in Orthogonal Frequency Division Multiplexing (OFDM) Systems with Minimum Peak-To-Average Power Ratio (PAPR)
- 10- Tags Anti-collision Protocol in RFID Systems
- 11- Novel Approaches for Image and Video Deblurring under Different Types of Noise Transmission
- 12- New Approaches for Image and Video Segmentation
- 13- A new approach of blind source separation of linear and nonlinear mixed signals
- 14- New method for image transmission through wireless communication channels using unequal error protection
- 15- Blind separation of Orthogonal Frequency Division Multiplexing (OFDM) signals
- 16- Image Classification and Retrieval using artificial neural networks
- 17- Position localization using RFID system
- 18- Modeling and Design of MEMS-based Magnetometers

List of Publications

- [1] Magdy M. Doss and **Usama Sayed** "A New digital technique for voice frequency band compression", *Journal of Engineering Sciences*, Assiut University, Egypt, Vol. 26, No 1, pp. 147-151, Jan. 1998.
- [2] **S. Usama**, B. Šimák, and M. Klima, "Critical Signal-to-Noise Ratio for Motion Estimation Algorithms with Influence of Gaussian Noise", International Conference on Telecommunications and Signal Processing (TSP'99), pp. 129-132, Sept. 1999
- [3] **S. Usama**, B. Šimák, and M. Klima, "2-D Motion Estimation of Video Sequences with Influence of Zero-Mean Gaussian Noise", *Journal of Radioengineering*, Proceeding of Czech and Slovak Technical Universities and Joint URSI Committee, vol. 8, No.4, pp. 35-40, Dec. 1999
- [4] **S. Usama**, B. Šimák, and M. Klima, "Impact of Speckle Noise with Motion Estimation Inter-Frame Image Predictions", International Conference on Telecommunications and Signal Processing (TSP'99), pp. 125-128, Sept. 1999
- [5] **S. Usama**, B. Šimák, and M. Klima, "Performance Evaluation of Motion Estimation Interframe Prediction Under influence of noise", Proceeding of fifty Joint Conference on Information sciences JCIS, (CVPRIP'2000), Atlantic City, Vol. 2, pp. 171-175, Feb. 2000
- [6] **S. Usama**, B. Šimák, and M. Klima, "Analysis of Motion Estimation Algorithms under Influence of Speckle Noise", International Seminar: Research in Telecommunication Technology (RTT'99), Prague, Sep. 1999
- [7] **S. Usama**, B. Šimák, and M. Klima, "A Comparison among Motion Estimation Algorithms under Influence of Salt & Pepper Noise", International Conference on Programmable Devices and Systems (IFAC-PDS'2000), Ostrava, pp. 227-230, Feb. 2000
- [8] **S. Usama**, B. Psenicka, B. Šimák, and M. Klima, "Accuracy of Motion Estimation Algorithms Related to Filtering Process" International conference on Telecommunications (ICT'2000), vol. 2, pp. 1129-1132, Acapulco, Mexico, May 2000
- [9] **S. Usama**, B. Šimák, and M. Klima, "Multiresolution Motion Estimation Based on Three-Step Search for Noisy Sequences", Workshop 2000, CTU in Prague, Feb. 2000.
- [10] **S. Usama**, B. Šimák, and M. Klima, " A Novel Block Matching Motion Estimation Algorithm for Noisy Sequences", International Conference on Telecommunications 2000, COFAX 2000, pp. 111-114, Bratislava, May 2000
- [11] **S. Usama**, B. Šimák, and M. Klima, "Simulation Comparison among the Performance of Motion Estimation Algorithms" the 4th International student Conference on Electrical Engineering, Poster 2000, pp. C21-C22, Prague, May 2000.
- [12] **S. Usama**, B. Šimák, and M. Klima, "Performance Evaluation of Motion Estimation Algorithms in Conjunction with Adaptive Filter", International workshops on Signal Processing and Image Processing, IWSSIP 2000, pp. 139-142, Maribor, Slovenia, June 2000.

- [13] **Usama Sayed**, "A Robust Motion Estimation Algorithm for Video Sequences Based on Spatio-Temporal correlations," The 7th IEEE International Conference on Intelligent Engineering Systems, INES 2003, pp. 682-686, vol. 2, Assiut, Egypt, march 2003.
- [14] **Usama Sayed**, "Automatic Moving Objects Extraction in Video Sequences: A Lifting Scheme Approach," in the Journal of Eng. Sciences (JES), Assiut, vol. 32, No.1, pp. 413-426, ISSN 1687-0530, Egypt, January 2004.
- [15] **Usama Sayed**, "Image Coding Technique Based on Object-Feature Extraction," in the Journal of Eng. Sciences (JES), vol. 33, No.1, pp. 287-297, Assiut, Egypt, January 2005.
** Published in the Proceedings of the 22nd National Radio Science Conference (NRSC'2005), in Arab Academy for Science, Technology and Maritime Transport (AASTMT), Cairo, Egypt, CD (Commission C16), March 2005.*
- [16] **Usama Sayed**, "Detection and Reduction of Blocking Artifacts in Images," in the 28th International Conference of Telecommunications and Signal Processing, Brno, Czech Republic, pp.82-86, September 2005.
** Published in the Journal of Eng. Sciences (JES), vol. 33, No.5, pp. 1815-1823, Assiut, Egypt, September 2005.*
- [17] **S. Usama**, and B. Šimák, "A Low-complexity Wavelet Based Algorithm for Inter-frame Image Prediction" In Journal of Acta polytechnica (Czech Republic), vol. 42, no. 2/2002, p. 30-34, July 2002. ISSN 1210-2709.
- [18] **Usama Sayed, M.** and Šimák, B. "Inter-Frame Image Prediction in the Presence of Speckle Noise Related to adaptive filter," In Electronics Letters.com [online], vol.2002,no.1/5/2002,p.1/5/2002.
 Internet:<http://www.electronicletters.com/papers/2002/0006/paper.asp>.ISSN1213-161X
- [19] **Usama Sayed** and Osama Ahmed, "A New Object Extraction Approach for Video Sequences Based on Spatial and Temporal Information," The 7th IEEE International Conference on Intelligent Engineering Systems, INES 2003, pp. 669-674, vol. 2, Assiut, Egypt, march 2003.
- [20] **Usama Sayed** and Osama Ahmed, "A Video Object Segmentation Using Redundant Wavelet Transform (RDWT)," the 7th Al-Azhar Engineering International Conference, AEIC2003, CD Code E02/02, Cairo, Egypt, April 2003.
- [21] **Usama Sayed** and Osama Ahmed, "Image Segmentation Based on Rainfalling Watershed in Wavelet Domain," International workshops on Signal Processing and Image Processing, IWSSIP 2003, pp. 227-230, Prague, Sept. 2003.
- [22] **Usama Sayed**, and Osama Ahmed, "Moving Object Segmentation for Video Sequences using Multiresolution Spatio-Temporal," in Scientific Bulletin of Faculty of Eng., Ein-Shams University, vol.39, No.1, pp. 467-481, ISSN 1110-1385, Egypt, March 2004.
- [23] **Usama Sayed**, and Osama Ahmed, "A Motion Estimation Algorithm for Video Compression Based on Arbitrary Shaped-regions (ASRA)" in the Journal of Eng. Sciences (JES), vol. 32, No.4, pp. 1697-1711, Assiut, Egypt, Sept. 2004.
- [24] **Usama Sayed**, and Mahmoud F. Mahmoud, "Wavelet Based Blind Signal Separation Scheme," in the Journal of Eng. Sciences (JES), vol. 33, No.5, pp. 1785-1798, Assiut, Egypt, September 2005.

- [25] **Usama Sayed**, M. Montaser and Osama Ahmed, "A Complexity and Quality Evaluation of Block Based Motion Estimation Algorithms," In Journal of Acta polytechnica (Czech Republic), vol. 1, no. 1/2005, pp. 29-41, 2005.
- [26] **Usama Sayed**, and Mahmoud F. Mahmoud, "Performance Evaluation of Independent Component Analysis in Reconstruction of Images from Their Linear Mixtures," Accepted In the international Conference on Graphics, Vision and Image Processing (GVIP-05), Cairo, Egypt, December 19-21, 2005.
- [27] **Usama Sayed**, "Highly Scalable Hybrid Image Coding Scheme," in the Journal of Digital Signal Processing, vol. 18, No.3, pp. 364-374, (Elsevier Pub.), May 2008, **Impact Factor 1.317**.
- [28] **Usama Sayed** and Hany Saber," Blind Separation of Nonlinear Mixing Signals Using Kernel with Slow Feature Analysis," in the International Journal of Video & Image Processing and Network Security, Vol. 9, No. 10, pp. 43-48, Jan. 2010, **Impact Factor 0.4571**.
- * *This paper is published under the name of: "Adaptive Approach for Blind Source Separation of Nonlinear Mixing Signals" in the Journal of Eng. Sciences (JES), vol.37, No. 3, pp. 653-667, Assiut, May 2009.*
- [29] **Usama Sayed**, "Blind Separation of Post-nonlinear Mixing Signals based on B-spline Neural Network and QR Factorization", International Journal of Engineering Science and Technology (IJEST), Vol. 2, Issue 7, pp. 2537-2552, June 2010, **IC 3.14**.
- [30] **Usama S. Mohammed** and Walaa M. Abd-Elhafiez, "New Approaches for DCT-Based Image Compression Using Region of Interest Scheme", International Journal of Applied Mathematics & Information Sciences, U.S.A, vol. 5, no. 1, pp. 29-43, 2011, **Impact Factor 0.508..**
- [31] **Usama S. Mohammed**, H. A. Hamada," An efficient rate allocation scheme with selective weighted function for optimum peak-to-average power ratio for transmission of image streams over OFDM channels ,” in the International Journal of Video & Image Processing and Network Security, Vol. 9, No. 10, pp. 30-42, Jan. 2010, **Impact Factor 0.4571**.
- [32] Samy Sadek, Ayoub Al-Hamadi, Bernd Michaelis, and **Usama Sayed**, "Efficient Region-Based Image Querying," International Journal of Computing, vol. 2 Issue: 10, pp. 1-6, June 2010.
- [33] Usama S. Mohammed and Walaa M. Abd-Elhafiez, "Wavelet based hybrid Video Coding Scheme", in International Journal of Advances in Science & Technology (IJAST), vol.1, no.3, pp. 18-30, Oct.2010.
- [34] **Usama S. Mohammed** and Walaa M. Abd-Elhafiez, "A new video coding approach based on object-extraction", International Journal of Video & Image Processing and Network Security IJVIPNS-IJENS vol: 09 Issue: 10, ISSN: 2077-1207, pp.62-70, Jan. 2010, **Impact Factor 0.4571**.
- [35] **Usama S. Mohammed** and Walaa M. Abd-Elhafiez, "Hybrid Approach for Object-Based Image Coding", Accepted in International Journal Applied Mathematics & Information Sciences, U.S.A, AMIS150509B, 2010, **Impact Factor 0.642..**
- * *Published in the proc. of the Workshop on Mathematics and Information Sciences (WMIS 2009) 22-23, Bahrien, April 2009.*

- [36] Samy Sadek, Ayoub Al-Hamadi, Bernd Michaelis, and **Usama Sayed**, "Image Retrieval using Cubic spline Neural Networks," International Journal of Video & Image Processing and Network Security(IJIPNS), vol. 9 No: 10, pp. 17-22, 2009, **Impact Factor 0.4571**.
- [37] **Usama S. Mohammed** and Walaa M. Abd-Elhafiez, "Image Coding Scheme Based on Object Extraction and Hybrid Transformation Technique", International Journal of Engineering Science and Technology ISSN: 0975-5462, vol. 2, issue 5, pp.1375-1383, May2010, **IC 3.14**.
** Published in the proc. of the IEEE International Conference on Image Processing (ICIP'2010), Hong Kong, Sep. 2010*
- [38] M. F. Fahmy, G. M. Abdel Raheem, **U. S. Mohammed** and Omar. M. Fahmy, "A Fast Iterative Blind Image Deconvolution Algorithm", in the Journal of Signal and Information Processing, vol.3 no.1, pp.98- 108, Feb. 2012, **Impact Factor 0.21**.
- [39] **Usama S. Mohammed** and H. A. Hamada, "An efficient Fuzzy-based rate allocation scheme with optimum peak-to-average power ratio for transmission of image stream over OFDM channels", in Journal of Annals of Fuzzy, Fuzzy logic and Fuzzy system, May 2010.
- [40] **Usama S. Mohammed** and H. A. Hamada, "Image transmission over OFDM channel with rate allocation scheme and minimum peak-to-average power ratio ", Journal of Telecommunication, vol.2, issue 2, pp.70:78, May 2010.
** This paper is published under the name of: "An efficient rate allocation scheme with selective interleaving for optimum peak-to-average power ratio of image transmission over OFDM channels" Accepted in The International Conference on Engineering and Meta-Engineering: ICEME 2010 (April 6th - 9th, 2010, Orlando, Florida, USA).*
- [41] **Usama Sayed Mohamed** and Mostafa Salah, "Tag Anti-collision Algorithm for RFID Systems with Minimum Overhead Information in the Identification Process", in the Radioengineering journal, vol. 20, no. 1, April 2010, **Impact Factor 0.739**.
- [42] **Usama Sayed** and Hany Saber,"A Novel Approach for Blind Separation of Nonlinear Mixing Signals using Adaptive Decorrelation", in International Journal of Advances in Science & Technology (IJAST), vol.1 no.2, pp. 8-17, Sept.2010.
- [43] **Usama Sayed Mohamed** and Mostafa Salah," Integrated Reader and Tag Anti-collision Protocol in RFID Systems based on Similar Topology Trees" in the International Journal of Radio Frequency Identification Technology and Applications (IJRFITA), Jan. 2012.
- [44] G. Fahmy, and M. F. Fahmy, and **U. S. Mohammed**, "Non Blind and Quasi-Blind Natural Preserve Transform Watermarking", EURASIP Journal on Advances in Signal Processing, Special Issue on Advanced Image Processing for Defense and Security Applications, Volume 2010 (2010), Article ID 452548, 13 pages, doi:10.1155/2010/452548, **Impact Factor 0.885**.
- [45] Samy Sadek, Ayoub Al-Hamadi, Bernd Michaelis, and **Usama Sayed**, "An Action Recognition Scheme Using Fuzzy Log-Polar Histogram and Temporal Self-Similarity", in EURASIP Journal on Advances in Signal Processing, January 2011, **Impact Factor 0.81**.

- [46] H. A. Hamada, **Usama S. Mohammed**, and Moon Kyou Song, "PAPR Reduction Using Huffman Coding Combined with Selective Interleaver for OFDM Transmitter," in the journal of Applied Mechanics and Materials Vol. 145, pp 489-493, jan. 2012.
- [47] **Usama Sayed**, Mahmoud A. Mofaddel, Walaa M.Abd-Elhafiez and Marwa M. Abdel-gawad: "Image Object Extraction Based on Curvelet transform", international Journal of applied Mathematics & Information Sciences, Vol. 7, No. 1, pp. 133-138, Jan. 2013, **Impact Factor 0.508**.
- [48] **Usama Sayed**, and Mahmoud F. Mahmoud, "A Blind Signal Separation Technique Based on Second Order and Higher Order Approaches," In the 4th International Conference on Information & Communications Technology (ICICT-06), pp. 401-413, Cairo, Egypt, Dec. 2006.
- [49] **Usama Sayed**, and Safwat M. Ramzy, "An Efficient Rate Allocation Scheme for Transmission of Image Streams over Binary Symmetric Channels," Journal of Eng. Sciences (JES), Assiut, Egypt, vol.35,no .1 ,PP.173.184. January 2007.
* Accepted in international conference of personal wireless communications (PWC'07), Prague, Czech Republic.
- [50] **Usama Sayed**, and Mahmoud F. Mahmoud, "A Novel Multiresolution Time-Frequency Approach for Blind Signal Separation of Convolutional Mixing Signals" in the Proceeding of the International Computer Engineering Conference (ICENCO'2006), pp. Sp8-Sp12, Dec. 2006.
- [51] **Usama Sayed**, and Mahmoud F. Mahmoud, "Frequency Domain Approach for Blind Signal Separation of Convolutional Mixed Signals," in the Proceeding of the 24th National Radio Science Conference (NRSC-07), March 2007.
- [52] **Usama Sayed**, and M. Yassien, "Image Transmission over Wireless Networks," in the CD of the 9th International Engineering conference, Al-Azhar University, Cairo, Egypt, April 2007.
- [53] **Usama Sayed**, and M. Yassien, "New Simultaneous Approximation for Wave Digital Lattice Filters Based on the Alternative and Iterative Generation of the Two Branch Polynomials," Journal of Engineering Sciences (JES), Assiut University, vol. 35, No. 2, pp. 477-488, March 2007.
- [54] **Usama Sayed**, and M. Yassien, "Design of Bandpass Wave Digital Filters Based on simultaneously Approximation of amplitude and phase" in *Scientific Bulletin of Faculty of En., Ein-Shams University*, vol.42, No31, pp. 631-643, ISSN 1110-1385, Egypt, Sept. 2007.
- [55] **Usama Sayed**, and M. Yassien, "Study of Error Protection for Progressive Image Transmission over the Wireless Communication Channels" in the CD of the IEEE international conference of :E-Medical Systems, TUNISIA , 2008.
- [56] **Usama Sayed** and Safwat M. Ramzy, "Video Transmission over CDMA channels with Bit-Rate Allocation and Power Optimization" in the Proceeding of the 5th International Conference on Information and Communications Technology (ICICT-2007), DEC.2007.
* Published in the *Journal of Eng. Sciences (JES)*, vol. 36, No.2, pp. 419-433, Assiut, Egypt, March 2008.
- [57] **Usama Sayed** and Safwat M. Ramzy, "Transmission of Video Bit Streams over Binary Symmetrical Channels with Optimum Bit Rate" in the 5th International

- Conference on Information and Communications Technology (ICICT-2007), Conference-CD, DEC.2007.
- [58] **Usama Sayed** and Safwat M. Ramzy, "Video Transmission over Binary Symmetrical Channels," in the Proceeding of the first Engineering Conference for young researchers, Faculty of Engineering-Assiut University, May 2007.
- [59] **Usama Sayed**, Samy Sadek, and Bernd Michaelis "Two Phases Neural Network-Based System for Pornographic Image Classification" in international conference of Sciences Of Electronic, Technologies Of Information and Telecommunications, March 22-26, TUNISIA , 2009.
*Accepted in international Conference on Computer and Communication Engineering ICCCE'08, Kuala Lumpur 13-15, May 2008.
- [60] **Usama Sayed**, Hesham Hamed and Samy Sadek, "Neural Network for Human Face Detection and Localization in Color Images," in the first Engineering Conference for young researchers, Faculty of Engineering-Assiut University, May 2007.
- [61] **Usama Sayed** and Wala Abd-Elhafiez, "Non-embedded Image Coding Techniques Based on Pixels Classification," in the Proceeding of the 2008 International Conference on Computer Engineering & Systems (ICCES'08), Cairo, EGYPT, November 25-27,2008.
- [62] **Usama Sayed** and Wala Abd-Elhafiez, "New Approach For Object-Based Image Coding" in the Proceeding of 19th International conference on computer theory and applications (ICCTA 2009), Alexandria, Egypt, 2009.
- [63] M. F. Fahmy, G. M. Abdel-Raheem, **U. S. Mohamed**, and Omar F. F Fahmy, "B_Spline wavelet bases and its application in signal Denoising," the *Proceedings of the 25th* National Radio Science Conference (NRSC-08), CD-Code C10, March 2008.
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MEMBERSHIP

- Reviewer in the 1st international Conference on Computers, Communications and Signal Processing – Malaysia
- Reviewer in the IEEE international conference of: E-Medical Systems, TUNISIA, 2008.
- IEEE 7th International Conference on Intelligent Engineering Systems, INES'2003, Assiut, Egypt, March 4-6, 2003.
- Reviewer in International workshops on Signal Processing and Image Processing, IWSSIP 2003, Prague, Sept. 2003.
- Reviewer in the Digital Signal Processing journal of (*Elsevier Pub.*).
- Member of the Egyptian Engineering Syndicate. (Since 1986)
- Member of the self evaluation team at the faculty of engineering, Assiut University, Assiut, Egypt. (Since 2003)
- Member of the Quality Assurance team at the faculty of engineering, Assiut University, Assiut, Egypt. (2003)
- Member in the International Signal Processing Society (ISPS). (Since 2004)
- Reviewer in the international conference of **Sciences of Electronic, Technologies of Information and Telecommunications**, March 22-26, TUNISIA, 2009.
- Reviewer in the IEEE Transaction in industrial Informatics.

V. PRACTICAL ACTIVITIES

- [1] Sharing in the international Project of the 3rd Generation of the Universal Mobile Telecommunication Services (UMTS) (2001 – 2002) in Prague.
- [2] Technical Eng., North Africa Company (NAC) Assiut Branch [Private Computer Company] (Part- Time Work) 1990-1992.
- [3] Co-operation with the EGTI Company to teach the Digital Exchange (EWSD) and follow the practical Situation.

VI. FIELD OF INTEREST

Digital Signal Processing- Image compression- Speech Compression- Motion Estimation for video sequences- Video Coding- Image Segmentation- Blind Signal Separation- Telecommunication System Engineering- Wireless Communications.

Contact Address for all references:

Department of Electrical & Electronics Engineering
Faculty of Engineering
Assiut University,
Assiut 71516, Egypt

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Dr. Usama Sayed Mohammed