



Curriculum Vitae

Personal Information:	
Name	Osama S. Faragallah
Birth Date	28/8/1974.
Place of Birth	Shebin Elkom, Menoufiya, Egypt.
Sex	Male
Marital status	Married
Nationality	Egyptian
Address	Department of Computer Science & Engineering, Faculty of Electronic Engineering, Menouf, 32952, EGYPT.
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Academic Information:

2007 Ph.D. – Ph.D. degree in computer science and engineering, Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.

Title: «**Utilization of Security Techniques for Multimedia Applications**»

2001 M.Sc. – M.Sc. degree in computer science and engineering. Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.

Title: «**Multilevel Security System for Computer Networks**».

1998 One year theoretical study in computer science and engineering.

1997 B.Sc. B.Sc degree in Electronic Engineering (May 1997) specialization Computer Science and Engineering. General grade Very good with Honor Degree (81.13%). Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.

Experiences:

Academic Education

- 2007-date** **Lecturer**, Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.
- 2001-2007** **Assistant Lecture**, Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.
- 1997-2001** **Demonstrator**, Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.
- 1997** **Graduate Project (Network Security)**, Dept. of Computer Science and Engineering, Faculty of Electronic Engineering, Menoufia University, EGYPT.

Scientific Activities:

- Member of the organizing committee of [the 25th NRSC 2008](#). Faculty of Engineering, Tanta University, Egypt.
- Member of the organizing committee of [the 23rd NRSC 2006](#). 14-16 Mars 2006, Faculty of Electronic Eng., Menoufiya University, Egypt.
- Preparing the program, the proceedings, and the CD of [the 23rd NRSC 2006](#).
- Member of the Local committee of [the 23rd NRSC 2006](#). 14-16 Mars 2006, Faculty of Electronic Eng., Menoufiya University, Egypt.
- Member of the Local committee of [the 23rd NRSC 2006](#). 14-16 Mars 2010, Faculty of Electronic Eng., Menoufiya University, Egypt.

Teaching Interest:

- Electronics
- Signal processing
- Operating system
- C++ Programming Language.
- Object Oriented Programming.
- Data Structure and Algorithms.
- Data Communication.
- Computer Networks.
- Digital Logic Design.
- Computer architecture
- Telecommunication network
- Microprocessor,
- Computer network,
- Electronic engineering,
- Compiler Design.
- Microprocessors.
- Assembly Language.
- Computer Architecture.

Research Interest:

- Cryptography
- Internet Security,
- Multimedia Security
- Image Encryption,
- Watermarking,
- Data Hiding
- Medical Imaging
- Biometrics
- Distributed computing
- Chaos Theory.
- Network Security
- Computer Networks
- Steganography,
- TCP (Transmission Control Protocol)
- Image Processing
- Super resolution Techniques

Publications :

Journal Publications:

1. Hossam El-din H. Ahmed, Hamdy M. Kalash, and Osama S. Faragallah, "Encryption Quality Analysis of RC5 Block Cipher Algorithm for Digital Images," Journal of Optical Engineering, vol. 45(10), 107003(1-7), 2006, **SPIE (ISI JCR Impact Factor: 0.959).**
2. Hossam El-din H. Ahmed, Hamdy M. Kalash, and Osama S. Farag Allah, "Implementation of RC5 Block Cipher Algorithm for Image Cryptosystems," International Journal of Information Technology, vol. 3(4), pp. 245-250, 2006.
3. Hossam El-din H. Ahmed, Hamdy M. Kalash, and Osama S. Farag Allah, "An Efficient Chaos-Based Feedback Stream Cipher (ECBFSC) for Image Encryption and Decryption," An International Journal of Computing and Informatics, vol. 31(1), pp. 121-129, 2007.

4. Hossam El-din H. Ahmed, Hamdy M. Kalash, and Osama S. Farag Allah, "Encryption Efficiency Analysis and Security Evaluation of RC6 Block Cipher for Digital Images," International Journal of Computer, Information, And Systems Science, and Engineering, vol. 1(1), pp. 33-39, 2007.
5. Mohamed Amin, Osama S. Faragallah, Ahmed A. Abd El-Latif, "Chaos-Based Hash Function (CBHF) for Cryptographic Applications," Chaos, Solitons & Fractals, vol. 42(2), pp. 767-772, 2009, **Elsevier (ISI JCR Impact Factor: 1.222).**
6. Ibrahim F. Elashry, Osama S. Faragallah, Alaa M. Abbas ,S. El-Rabaie, Fathi E. Abd El-Samie, "Homomorphic Image Encryption," Journal of Electronic Imaging, vol. 18(3), 033002(1-14), 2009, **SPIE (ISI JCR Impact Factor: 0.647).**
7. E. El-Emam, M. Koutb, H. Kelash, and Osama S. Faragallah, "A Network Authentication Protocol Based on Kerberos," International Journal of Computer Science and Network Security (IJCSNS), vol. 9(8), pp. 17-26, 2009.
8. Mohamed Amin, Osama S. Faragallah, Ahmed A. Abd El-Latif, "A Chaotic Block Cipher Algorithm for Image Cryptosystems," Communications in Nonlinear Science and Numerical Simulation, vol. 15(1), pp. 3484–3497, 2010, **Elsevier (ISI JCR Impact Factor: 2.806).**
9. M. R. Metwalli, A. H. Nasr, Osama S. Faragallah, S. El-Rabaie, F. E. Abd El-Samie, "Satellite Image Fusion Based on Principal Component Analysis and High-Pass Filter," Journal of the Optical Society of America A, vol.

- 27(6), pp. 1385-1394, 2010, **OSA (ISI JCR Impact Factor: 1.536).**
10. Osama S. Faragallah, "An Efficient Block Encryption Cipher Based on Chaotic Maps for Secure Multimedia Applications," *Information Security Journal: A Global Perspective*, vol. 20(3), pp. 135-147, 2011, **Taylor & Francis.**
 11. Osama S. Faragallah, "Digital Image Encryption Based on the RC5 Block Cipher Algorithm," *Sensing and Imaging: An International Journal*, vol. 12(3), pp. 73-94, 2011, **Springer.**
 12. E. El-Emam, M. Koutb, H. Kelash, and Osama S. Faragallah, "An Authentication Protocol Based on Kerberos 5," *International Journal of Network Security (IJNS)*, vol. 12(3), pp. 159-170, 2011.
 13. Osama S. Faragallah, "Discrete Wavelet Transform–Based Spatial-Temporal Approach for Quantized Video Watermarking", *Journal of Optical Engineering*, vol. 50(7), 077402(1-10), 2011, **SPIE (ISI JCR Impact Factor: 0.959).**
 14. Ahmed I. Sallam, El-Sayed El-Rabaie, Osama S. Faragallah, "Encryption-Based Multilevel Model for DBMS", *Computers & Security*, vol. 31(4), pp. 437-446, 2012, **Elsevier (ISI JCR Impact Factor: 0.868).**
 15. Osama S. Faragallah, "An Enhanced Chaotic Key-Based RC5 Block Cipher Adapted to Image Encryption," *International Journal of Electronics*, vol. 99(7), pp. 925-943, 2012, **Taylor & Francis (ISI JCR Impact Factor: 0.440).**

16. Osama S. Faragallah, "Enhanced Semi-automated Method to Identify the Endo-cardium and Epi-cardium Borders," Journal of Electronic Imaging, vol. 21(2), 023024 (1-19), 2012, **SPIE (ISI JCR Impact Factor: 0.647)**.
17. Nawal A. Elfeshawy, Osama S. Faragallah, "Divided Two-part Adaptive Intrusion Detection System," Journal of Wireless Networks, Digital Object Identifier: 10.1007/s11276-012-0467-7, 2012, **Springer (ISI JCR Impact Factor: 0.520)**.
18. Ibrahim F. Elashry, Osama S. Faragallah, Alaa M. Abbas, S. El-Rabaie, Fathi E. Abd El-Samie, "A New Method for Encrypting Images with Few Details Using Rijndael and RC6 Block Ciphers in the Electronic Code Book Mode," Information Security Journal: A Global Perspective, vol. 21(4), pp. 193-205, 2012, **Taylor & Francis**.
19. Osama S. Faragallah, "Quadruple Difference Expansion-Based Reversible Data Hiding Method for Digital Images," Information Security Journal: A Global Perspective, vol. 21(5), pp. 285-295, 2012, **Taylor & Francis**.
20. M. R. Metwalli, A. H. Nasr, Osama. S. Faragallah, S. El-Rabaie, F. E. Abd El-Samie, "Combining Super-Resolution and Fusion Methods for Sharpening Misrsat-1 Data," IEEE Transactions on Geoscience and Remote Sensing, vol. 99, pp. 1-10, 2012, Digital Object Identifier: 10.1109/TGRS.2012.2209203, **IEEE (ISI JCR Impact Factor: 2.895)**.
21. Ayman Mousa, E. M. Nigm, S. El-Rabaie, Osama S. Faragallah, "Query Processing Performance on Encrypted Databases by Using the Algorithm (REA)," International Journal of Network Security (IJNS), vol. 14(5), pp.

280-288, Sept. 2012.

22. Ayman Mousa, E. M. Nigm, S. El-Rabaie, Osama S. Faragallah, "Evaluating the Performance of Reverse Encryption Algorithm (REA) on the Databases," Accepted for Publication in International Arab Journal of Information Technology (IAJIT), 2012, **(ISI JCR Impact Factor: 0.127)**.
23. Osama S. Faragallah, "Efficient Video Watermarking Based on Singular Value Decomposition in the Discrete Wavelet Transform Domain," International Journal of Electronics and Communications (AEUE), In Press, Corrected Proof, Available online 27 August 2012, Digital Object Identifier:10.1016/j.aeue.2012.07.010, **Elsevier (ISI JCR Impact Factor: 0.588)**.
24. Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, Osama S. Faragallah, Mohamed G. El-Abyad, " New Trends of Multiplexing Techniques Based Submarine Optical Transmission Links for High Transmission Capacity Computing Network Systems," Canadian Journal on Science and Engineering Mathematics, vol. 3(3), pp. 112-126, March 2012.
25. Abd El-Naser A. Mohammed, Ahmed Nabih Zaki Rashed, Osama S. Faragallah, Mohamed G. El-Abyad, "Rigorous Progress on Algorithms Based Routing and Wavelength Assignment in Trans-Egypt Network (TEGYNET) Management," Canadian Journal on Electrical and Electronics Engineering, vol. 3(6), pp. 277-291, July 2012.

Conference Publications:

1. Osama S. Faragallah, Abdul Hamid M. Ragab, and Nabil A. Ismail, "Enhancements and Implementation of RC6™ Block Cipher for Data Security," IEEE Catalog Number: 01CH37239, pp. 133-137, 2001.
2. Osama S. Farag Allah, Abdul Hamid M. Ragab, and Nabil A. Ismail, "An Efficient Message Digest Algorithm (MD) For Data Security," IEEE Catalog Number: 01CH37239, pp. 191-197, 2001.
3. Hossam El-din H. Ahmed, Hamdy M. Kalash, and Osama S. Farag Allah, "Encryption Efficiency Analysis and Security Evaluation of RC6 Block Cipher for Digital Images," Proceedings of International Conference on Electrical Engineering, (ICEE), 2007, pp. 1-7, Digital Object Identifier: 10.1109/ICEE.2007.4287293.
4. Nawal A. El-Fishawy, Osama S. Faragallah, Hassan I. Sayed, "Neural Network Algorithms Performance Measure for Intrusion Detection," Proceedings of the International Computer Engineering Conference, (ICENCO), Cairo, Egypt, EG06, 2008
5. Nawal A. El-Fishawy, Osama S. Faragallah, Hassan I. Sayed, "Reduction the Rate of Alerts and False Positives of Intrusion Proceedings of the International Computer Engineering Conference, (ICENCO), Cairo, Egypt, EG07, 2008.
6. Ibrahim F. Elashry, Osama S. Faragallah, Alaa M. Abbas,; S. El-Rabaie, "A new diffusion mechanism for data encryption in the ECB mode," Proceedings of the International Conference on Computer Engineering &

- Systems (ICCES), Cairo, Egypt, pp. 288-293, 2009, Digital Object Identifier 10.1109/ICCES.2009.5383254.
7. E. El-Emam, M. Koutb, H. Kelash, and Osama S. Faragallah, "An optimized Kerberos authentication protocol," Proceedings of the International Conference on Computer Engineering & Systems (ICCES), Cairo, Egypt, pp. 508- 513, 2009, Digital Object Identifier 10.1109/ICCES.2009.5383213.
 8. Mohamed R. Metwalli, Ayman H. Nasr, Osama S. Farag Allah, S. El-Rabaie, "Image fusion based on principal component analysis and high-pass filter," Proceedings of the International Conference on Computer Engineering & Systems (ICCES), Cairo, Egypt, pp. 63- 70, 2009, Digital Object Identifier 10.1109/ICCES.2009.5383308.
 9. I. F. Elashry, O. S. Farag Allah, A. M. Abbas, S. El-Rabaie, and F. E. Abd El-Samie, "A Flexible Symmetric-Key Block Cipher Algorithm" Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C23, 2010.
 10. Ahmed I. Sallam, El-Sayed El-Rabaie, Osama S. Faragallah, "Comparative Study of Polyinstantiation Models in MLS Database," Proceedings of the International Computer Engineering Conference, (ICENCO), Cairo, Egypt, pp. 158-165, 2010.
 11. M. R. Metwalli, A. H. Nasr, O. S. Faragallah, S. El-Rabaie, F. E A. El-Samie, "Sharpening MIRSAT-1 data using Super-Resolution and HPF fusion methods," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C1, pp. 1-8, 2011, Digital Object Identifier:

- 10.1109/NRSC.2011.5873639.
12. A. Sarhan, F. Elgendy, T. Eltobely, O. S. Faragallah, "An efficient approach for image cryptosystem based on chaotic confusion-diffusion mechanisms," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C8, pp. 211-221, 2012, Digital Object Identifier: 10.1109/NRSC.2012.6208526.
 13. H. M. Elhosany, H. E. Hossin, H. B. Kazemian, O. S. Faragallah, "Chaotic encryption of images in the Fractional Fourier Transform domain using different modes of operation," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C9, pp. 223-235, 2012, Digital Object Identifier: 10.1109/NRSC.2012.6208527.
 14. H. M. Kelash,; A. F. Alenezi, O. S. Faragallah, "Improved histogram-based reversible data hiding for digital images," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C10, pp. 237-244, 2012, Digital Object Identifier: 10.1109/NRSC.2012.6208528.
 15. M. R. Metwalli, A. H. Nasr, O. S. Faragallah, S. El-Rabaie, F. E A. El-Samie, "Estimation of the optimal set of parameters for PAN-sharpening of satellite images based on the Non-Sub-sampled Contourlet Transform," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C14, pp. 271-278, 2012, Digital Object Identifier: 10.1109/NRSC.2012.6208532.
 16. Osama R. Shahin, Hamdy M. Kelash, Gamal Mahrous, Osama S. Faragallah, "Breast Cancer Mass Detection in Mammograms using Modified

K-means Clustering," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C19, pp. 309-315, 2012, Digital Object Identifier: 10.1109/NRSC.2012.6208537.

17. Osama R. Shahin, Hamdy M. Kelash, Gamal Mahrous, Osama S. Faragallah, "Evolutionary Algorithm in the Classification of Calcification in Mammograms," Proceedings of the URSI National Radio Science Conference (NRSC), Cairo, Egypt, C20, pp. 317-324, 2012, Digital Object Identifier: 10.1109/NRSC.2012.6208538.

Computer Skills:

Operating Systems	Dos, Windows, Linux.
Programming Languages	Basic, Pascal, C++, OO C++, MatLab, HTML, and Php.
Environments	Word, Excel, PowerPoint, Access, Latex ...
Computer Networks:	LAN (Ethernet), FDDI, Network Simulator (NS-2), Internet.

Additional Information:

Languages	Arabic: Mother tongue
	English