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Citation indices All Since 2012

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Education & Thesis

Ph.D., Computer Science- Feb. 2002, University of Technology, Baghdad, Iraq,
M. Sc., Computer Science- Dec. 1996, University of Baghdad, Baghdad, Iraq,
B. Sc., Computer Science- June 1993, University of Baghdad, Baghdad, Iraq,

Promotion of Scientific Degrees

Professor 2011
Associate Professor 2005
Lecturer 2002
Assistant lecturer 1997

Languages Arabic (native language), English (Oral & Written)

International awards

- **Valuable reviewer** at Elsevier publisher. (2016)
- **Recognized and outstanding reviewer** at Elsevier publisher. (2014 and 2015)
- Enan A. Khalil, **Bara'a A. Attea**, Energy-aware evolutionary routing protocol for dynamic clustering of wireless sensor networks, Swarm and Evolutionary Computation, Elsevier 01/2011; 1:195-203. **Featured as one of most cited articles in Swarm and Evolutionary Computation.**
- Enan A. Khalil, **Bara'a A. Attea**, Energy-aware evolutionary routing protocol for dynamic clustering of wireless sensor networks, Swarm and Evolutionary Computation, Elsevier

01/2011; 1:195-203. **Featured as top hottest articles in Swarm and Evolutionary Computation.**

International activities

-**Reviewer** in several International journals of IEEE Trans., Elsevier, Springer, and Hindawii publishers.

- **Visiting Researcher** (2011 - 2013) and **Research collaborator** (2011 - till now) in Wireless Sensor Networks and Data Mining Laboratory (KAVEM), Gazi University, Computer Engineering Department, Ankara, Turkey.

- **Visiting researcher** in Middle East Technical University - Ankara - Turkey

- **External Ph.D. examiner** / Malay University - Malaysia (2015, 2016).

- **External scientific reporter** for Ph.D. dissertation / Universite de Franche-Comte, France (2016).

-**Member** in Academic Degree Promotion / Malay University - Malaysia.

National activities

- Scientific Committee, Computer Science Department, College of Science, University of Baghdad Concerning:

- Planning for undergraduate and postgraduate syllabus.
- Planning for postgraduate competition.
- Scientific Research Evaluation, Quotation, and Authenticity.

- B.Sc. Project Examination Committee, Computer Science Department, College of Science, University of Baghdad.

- Patent Determination and Testing Committee for a Patent Registration Request, Computer Science Department, College of Science, University of Baghdad.

- Curriculum Committee, Computer Science Department, College of Science, University of Baghdad.

- Department Council of Computer Science Department, College of Science, University of Baghdad.

- Examination Committee (B.Sc. And M.Sc. course studies), Computer Science Department, College of Science, University of Baghdad.

- Library Committee, College of Science, University of Baghdad.

- Scientific Authoring, nourish and Arabic Translation Committee, College of Science, University of Baghdad.

- Ph.D. dissertation Examination Committee in Informatics Institutes for Postgraduate Studies/ University of Technology.

- Upgrading Examination Committees, Computer Science Department, College of Science, University of Baghdad.

- M.Sc. and Ph.D. thesis Examination Committees in:

- Computer Science Department/ College of Science/ University of Baghdad.
- Computer Engineering Department/ College of Engineering / University of Al-Nahrain.

- Computer Medical Engineering Department/ College of Medical Engineering / University of Al-Nahrain.
- Computer Science Department/ College of Science/ University of Al-Nahrain.
- Informatics Institutes for Postgraduate Studies/ University of Technology.

Publication Highlights

2016

1. **Bara'a A. Attea**, Haider K. Khoder A new multi-objective evolutionary framework for community mining in dynamic social networks, *Swarm and Evolutionary Computation* 31, 90-109.
2. **Bara'a A. Attea** , Dlsuz A. Rashid, Multi-layer Multi-objective Evolutionary Algorithm for Adjustable Range Set Covers Problem in Wireless Sensor Networks, *Iraqi Journal of Science* 57 (1C), 755-767.

2015

3. **Bara'a A. Attea**, Wisam A. Hariz, Mayyadah F. Abdul-Halim, Improving the Performance of Evolutionary Multi-objective Co-clustering Models for Community Detection in Complex Social Networks, *Swarm and Evolutionary Computation* 26(2016) 137-156, Elsevier.
4. Hilal H. Saleh, Nasreen J. Kadhim, **Bara'a A. Attea**, A Genetic Based Optimization Model for Extractive Multi-Document Text Summarization, Accepted in *Iraqi Journal of Science*.
5. **Bara'a A. Attea**, Multi-Objective Set Cover Problem for Reliable and Efficient Wireless Sensor Networks, Accepted in *Iraqi Journal of Science*, Vol 56, No.2A, pp:1147-1160.
6. Sarab M. Hameed, Rasha A.M. Altea, **Bara'a A. Attea**, Fuzzy Based Clustering For Grayscale Image Steganalysis, Accepted in *Iraqi Journal of Science*, Vol 56, No.2A, pp:1161-1175.
7. **Bara'a A. Attea**, Enan A. Khalil, Suat Özdemir, Oktay Yıldız, A Multi-objective Disjoint Set Covers for Reliable Lifetime Maximization of Wireless Sensor Networks, *Wireless Personal Communication*, Springer 81:819-838.

8. Mayadah F. Abdulhalimm, **Bara'a A. Attea**, Multi-layer Genetic Algorithm for Maximum Disjoint Reliable Set Covers Problem in Wireless Sensor Networks. *Wireless Personal Communications*, Springer, 80:203–227.
9. Sarab M. Hameed, Marwan B. Mohammed, **Bara'a A. Attea**, Fuzzy Based Spam Filtering, *Iraqi Journal of Science*, Vol 56, No.1B, pp: 506-519.

2014

10. **Bara'a A. Attea**, Enan A. Khalil, and Ahmet Cosar, Multi-objective evolutionary routing protocol for efficient coverage in mobile sensor networks, *Soft Computing*, Springer 1-13.
11. **Bara'a A. Attea**, Enan A. Khalil, and Suat Özdemir. Biologically inspired probabilistic coverage for mobile sensor networks, *Soft Computing*, Springer 18.11 (2014): 2313-2322.
12. **Bara'a A. Attea**, Sarab M. Hameed, A Genetic Algorithm for Minimum Set Covering Problem in Reliable and Efficient Wireless Sensor Networks. *Iraqi Journal of Science*, 2014, Vol 55, No.1, pp: 224-240.

2013

13. Suat Özdemir, **Bara'a A. Attea**, Önder A. Khalil, Multi-objective clustered-based routing with coverage control in wireless sensor networks. *Soft Computing*, Springer 17(9): 1573-1584.
14. Suat Özdemir, **Bara'a A. Attea**, Önder A. Khalil, Multi-Objective Evolutionary Algorithm Based on Decomposition for Energy Efficient Coverage in Wireless Sensor Networks. *Wireless Personal Communications*, Springer, 71.1: 195-215.
15. Enan Ameen Khalil, **Bara'a Ali Attea**, Stable-Aware Evolutionary Routing Protocol for Wireless Sensor Networks, *Wireless Personal Communications*, Springer, 69.4: 1799-1817.

2012

16. **Bara'a A. Attea**, Enan A. Khalil, A new evolutionary based routing protocol for clustered heterogeneous wireless sensor networks. *Applied Soft Computing - Elsevier*, 12.7: 1950-1957.

2011

17. Enan A. Khalil, **Bara'a A. Attea**, Energy-aware evolutionary routing protocol for dynamic clustering of wireless sensor networks, *Swarm and Evolutionary Computation*, Elsevier 01/2011; 1:195-203. Featured as one of most cited articles in *Swarm and Evolutionary Computation*, <http://www.journals.elsevier.com/swarm-and-evolutionary-computation/most-cited-articles/>.

2010

18. **Bara'a Ali Attea**, A fuzzy multi-objective particle swarm optimization for effective data clustering, *Memetic Computing*, Springer 01/2010; 2:305-312.
19. Bara'a Ali Attea, Laylan Mohammad Rashid, Wafaa Khazzal Shames, Evolutionary algorithm for example-based painterly rendering. *International Journal of Bio-Inspired Computation* 01/2010; 2:132-141;

Before 2010

20. **Bara'a Ali Attea**, Amina Dahim Aboud, Evolutionary colourisation of greyscale images.. *International Journal of Advanced Media and Communication*. 01/2007; 1:203-210;
21. **Bara'a Ali Attea**, and Laylan M. Rashid, Handling Quantitative Appearance of Color Images Using Luminance Processing, *Journal of Engineering*, College of Engineering, University of Baghdad, 2006.
22. **Bara'a Ali Attea**, and Sana'a K., A Fully Automatic Genetic Approach for Grayscale Image Colorization, *Journal of Engineering*, College of Engineering, University of Baghdad, 2006.
23. **Bara'a Ali Attea**, Aminna Dahim Aboud, A Genetic Approach for Automated Image Generation, *Journal of Engineering*, College of Engineering, University of Baghdad, N.2, Vol.11, Jun. 2005.
24. **Bara'a Ali Attea**, Deldar I. Abdo Al-Rahman, Solving Multiple-Container Packing Problems Using Pseudo-Meiosis Genetic Algorithm, *Journal of Engineering*, College of Engineering, University of Baghdad, N.3, Vol.11, 2005.

25. **Bara'a Ali Attea**, Diploid GA with Real-valued vs. Binary-coded Recombination Operator in Diploid Genetic Algorithm, Iraqi Journal of Science, College Science, University of Baghdad, 2004.
26. **Bara'a Ali Attea**, The Effect of Pseudo-Meiosis Genetic Algorithm on Bit-coding Stationary Genetic Search, Iraqi Journal of Science, College of Science, University of Baghdad, 2004.
27. **Bara'a Ali Attea**, An Investigation of Genetic Algorithm with Binary Coding for Combinatorial Optimization Problems, Journal of Al-Rafidain University College for Sciences, 2003.
28. **Bara'a Ali Attea**, The Role of Diploid Genetic Algorithms in Deceptive Problems, Iraqi Journal of Science, College of Science, University of Baghdad, No.1, Vol. 43, 2002.
29. **Bara'a Ali Attea**, Imitating Natural Recombination in Evolutionary Programming, Iben Al-Haithm Journal for Pure and Applied Science, Vol. 15, No. 4G, 2002.
30. Riyadh S. Naom , Mayada F. Abdul-Halim and **Bara'a Ali Attea**, GOST versus DES Encryption Algorithms, Iraqi Journal of Science, College of Science, University of Baghdad, 1999.
31. Hisham Al-rawi, Reyadh S. Naoum, **Bara'a Ali Attea**, Concealed Images in Guarded GIF Format Part Two: Image Concealment, Iraqi Journal of Science, College of Science, University of Baghdad, 1997.
32. Hisham Al-rawi, Reyadh S. Naoum, **Bara'a Ali Attea**, Concealed Images in Guarded GIF Format Part One: One Dimensional Image Transformation, Iraqi Journal of Science, College of Science, University of Baghdad, 1997.
33. Hisham Al-rawi, Reyadh S. Naoum, **Bara'a Ali Attea**, Extending One Dimensional Transforms for Image Transformation, Iraqi Journal of Science, College of Science, University of Baghdad, Vol. 38, No.4, 1997.

[Conference Proceedings](#)

34. Suat Özdemir, **Bara'a A. Attea**, and Önder A. Khalil, Bio-Inspired Algorithms for Coverage Efficiency in Wireless Sensor Networks, Accepted in ICIA2012 International Conference, Malaysia, 2012;
35. **Bara'a A. Attea**, F. Y. Okay, S. Özdemir, M. A. Akcayol, "Multi-objective evolutionary algorithm based on decomposition for efficient coverage control in mobile sensor networks," AICT2012, 17-19 October 2012, Georgia, 2012;
36. M.F. AbdulHalim, **Bara'a A. Attea**, S.M. Hameed: A binary Particle Swarm Optimization for attacking knapsacks Cipher Algorithm. Computer and Communication Engineering, 2008. ICCCE 2008. International Conference on; 06/2008;
37. **Bara'a Ali Attea**, Amina Dahim Aboud: Evolutionary Colorization of Grayscale Images.. 2006 IEEE/ACS International Conference on Computer Systems and Applications (AICCSA 2006), March 8-11, Dubai/Sharjah, UAE; 01/2006;
38. Sarab M. Hammed, Mayada F. Abdul Halim, and **Bara'a Ali Attea**, "Diploid Genetic Algorithm with Exogenous Recombination Scheme for Merkle-Hellman Knapsack Attack", ACEA2008, Jordan;
39. Mayada F. Abdul Halim, **Bara'a Ali Attea**, and Sarab M. Hammed, "A Binary Particle Swarm Optimization for Attacking Knapsacks", ICCCE08, Malaysia;
40. **Bara'a Ali Attea**, Laylan Mohammad Rashid, and Wafa'a Khazzal Shames, "An Evolutionary Approach for Example-Based Image Painting", ACEA2008, Jordan;
41. **Bara'a Ali Attea**, and Mariam A. Ali, "Luminance Pyramid for Image Generation and Colorization", DCCA07, Jordan University;
42. **Bara'a Ali Attea**, Sarab Majeed Hameed, and Aminna Dahim Aboud, "Patch-based Colorization of Grayscale Images", International Conference on Computer & Communication Engineering (ICCCE'06)
43. **Bara'a Ali Attea**, and Basa'd Ali Hussain, "An Evolution Strategy for Likelihood Estimator of ARMA (1,1)", In the 4th International Multiconference on Computer Science and Information Technology, CSIT 2006, pp. 113-122, vol. 1;

44. **Bara'a Ali Attea**, Sarab Majeed Hameed, and Aminna Dahim Aboud, " Content-based Grayscale Image Colorization", In the 4th International Multiconference on Computer Science and Information Technology, CSIT 2006,pp. 264-270, vol. 1;
45. **Bara'a Ali Attea**, and Aminna Dahim Aboud, "Evolutionary Colorization of Grayscale Images", In the 4th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-06);
46. **Bara'a Ali Attea**, and Laylan M. Rashid, "A Genetic Algorithm for Texture Synthesis and Transfer", In Texture 2005: Proceedings of the 4th International Workshop on Texture Analysis and Synthesis, pp. 59- 64, 2005.
47. **Bara'a Ali Attea**, and Laylan M. Rashid, "A New Nonphotorealistic Texture Rendering Using Genetic Algorithms", In the 10th Al-Rafidain Scientific Conference, Al-Rafidain University College, 2005.
48. Mayada F. Abdul-Halim and **Bara'a Ali Attea**, "Local and Global Search Operators in Genetic Algorithms", Proceeding of the 2nd International Conference of Computers and Informatics on "Artificial Systems"/Iraqi Commission for Computer and Informatics, 2003.
49. Hisham Al-rawi, Reyadh S. Naoum, **Bara'a Ali Attea**, "Concealed Images in Guarded GIF Format", In the 4th International Conference for Computers, 27-11- 1996.