Dr. Manar Ibrahim Fawzi Hosny

Current Position: Associate Professor at the Computer Science Department, College of Computer and Information Sciences (CCIS), King Saud University (KSU), Riyadh, Saudi Arabia

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PERSONAL STATEMENT

I am an Associate Professor in the Computer Science Department, College of Computer and Information Sciences (CCIS), King Saud University (KSU), Riyadh, Saudi Arabia. I first joined the College of Computer and Information Sciences as the first and only Saudi female Teaching Assistant specialized in Computer Science in 1990.

I received a Bachelor of Science in Computer Science, with highest honors, from The American University in Cairo, Egypt, 1990. I have an MSc in Computer Science from The American University in Cairo, Egypt, 2000. I received a PhD in Computer Science from Cardiff School of Computer Science and Informatics, Cardiff University, UK, 2010.

I have an extensive teaching experience in many Computer Science subjects, such as Pascal, C, C++, Java, Assembly, Data Structures, Databases, Computer Graphics, Computer Medical Applications, Selected Topics in AI and Research Methods. I supervised several graduate and undergraduate projects and MSc and PhD theses. I am a qualified and skilled researcher and have many publications in well recognized conferences and journals. I am currently the vice chair of the computer science department, and have previously held several administrative posts in the college of computer and information sciences.

EDUCATION

- **PhD in Computer Science from Cardiff School of Computer Science and Informatics, Cardiff University, UK, 2010**

  Thesis Title: "Investigating Heuristic and Meta-heuristic Algorithms for Solving Pickup and Delivery Problems"

  Supervisor: Dr. Christine Mumford (c.l.mumford@cs.cardiff.ac.uk)

  Specialization: Scientific Computing and Optimization

- **MSc in Computer Science from the American University in Cairo, Egypt, 2000**

  GPA: 3.913 out of 4.0

Thesis Title: "A Hybrid Genetic Annealing Approach for Solving the MAP Problem on Belief Networks"

Supervisor: Dr. Ashraf Abdelbar (abdelbar@aucegypt.edu)

- **BSc in Computer Science from the American University in Cairo, Egypt, 1990**

  GPA: 3.868 out of 4.0 with Highest Honors

  Minor: Mathematics

WORK EXPERIENCE

- **Associate Professor:** Computer Science (CS) Department, College of Computer and information Sciences (CCIS), King Saud University (KSU), Riyadh, Saudi Arabia (Dec 2018 – present)
- **Assistant Professor:** CS Department, CCIS, KSU, Riyadh, Saudi Arabia (2011 – present)
- **Vice Chair of the Computer Science department:** CS Department, CCIS, KSU, Riyadh, Saudi Arabia (May 2015 – present)
- **Assistant Vice Dean for Female Academic Affairs:** CCIS, KSU, Riyadh, Saudi Arabia (2013)
- **PhD Student:** Cardiff School of Computer Science and Informatics, Cardiff University, UK. Scholarship financially sponsored by the CCIS, KSU (2006-2010)
- **Lecturer:** Information Technology Department, CCIS, KSU (2000 -2006)
- **MSc Student:** The American University in Cairo, Egypt. Scholarship financially sponsored by the CCIS, KSU (1997-2000)
- **Teaching Assistant:** Computer Applications Department, CCIS, KSU (1990-1997)

HONORS AND AWARDS

- Award of distinguished academic achievement from "Women's Higher Education Symposium", Riyadh, Saudi Arabia (2013).
- Best PhD poster award for third year PhD students, Cardiff School of Computer Science and Informatics (2008, 2009)
- Best PhD presentation award for first year PhD students, Cardiff School of Computer Science and Informatics (2007)
- Three letters of recognition for outstanding achievement from the Saudi Cultural Attaché in London (2007, 2008, 2009)
- Highest Honors Bachelor Degree from the American University in Cairo (1990)
- Awards of outstanding academic achievement in the American University in Cairo (1986, 1987, and 1989)
- Merit Scholarship from the American University in Cairo (1986, 1987, and 1989)

AREAS OF RESEARCH INTEREST

- Heuristic Algorithms
- Meta-heuristic Algorithms
- Evolutionary Algorithms
- Combinatorial Optimization Problems
- Nature Inspired Algorithms
- Vehicle Routing Problems
- Timetabling and Scheduling Problems
- Data Mining
- Bioinformatics
- Affective Computing
- Human Computer Interaction
- E-learning
- Ethics in Information Technology

RESEARCH EXPERIENCE

RESEARCH PROJECTS:

- A Custom Genetic Algorithm for Counterfactual Explanation of AI Models Including Features Importance and Fairness (2022-present)
- Optimization of Influenza Vaccination Strategy Planning and Allocation Using an Age-Dependent Approach in Saudi Arabia (2020-present)
- Optimizing the use of Drones in healthcare applications (2019-present)
- Enhancing Pre-trained Language Models Representations with Rich Knowledge for Arabic Text Machine Reading Comprehension (2019-2022)
- Automatic Detection of Cyberbullying in Social Media Content (2020)
- A Swarm Intelligence Solution for the Selective Pickup and Delivery problem (2017-2019)
- Using sentiment agreement and conversational interaction to predict user trust relation among users based on Arabic tweets (2018)
- A Genetic-Frog Leaping Algorithm for Text Document Clustering (2018)
- Operating room Scheduling using a Bees Algorithm (2017)
- A Two-Level Nature Inspired Algorithm for Multi-Dimensional Data Clustering (2017)
- The dial-a-ride problem and vehicle routing for healthcare applications (2016-present).
- A Study on the Optimization of the P300 Region Based Speller for Brain-Computer Interface (2016)
- Dynamic Indoor Path Planning for The Visually Impaired (2016)
- A Co-Evolutionary Algorithm for Multi-Dimensional Clustering (2016)
- A Multimodal Adaptive Genetic Clustering of Social Media Data (2015)

- PhyloBee: Phylogenetic Tree Construction Inspired by Bees Algorithm (2014)
- General Algorithmic Framework for Solving the Median Problem using genome Rearrangement Techniques (2014)
- Augmenting Speech Language Rehabilitation Using Emotion Detection Based Brain Computer Interface (2015)
- A Hybrid Demon-Bees Algorithm for solving the University Course Timetabling Problem (2014)
- An Optimized Single Finger Arabic Keyboard Layout (2013)
- Wheelchair Navigation using BCI and Path Planning Optimization (2013)
- The Median Problem: A Hybrid Heuristic Approach with Application in Bioinformatics (2012)
- A Genetic Algorithm Based Examination Scheduling (2012)
- A Genetic Algorithm Approach for the Nurse Rostering Problem (2012)
- Using Facebook in Education: A Survey (2012)
- Emotional Intelligent Screener (2011)
- An Automatic Teachers to Courses Assignment Tool (2011)
- Genetic Algorithms for the University Timetabling Problems (2011)
- Investigating Heuristic and Meta-heuristic Algorithms for Solving Pickup and Delivery Problems (2010)
- A Hybrid Genetic Annealing Approach for Solving the MAP Problem on Belief Networks (2000)
- A Genetic Algorithm Approach for Document Clustering of Large Databases (1999)
- Tourist Planner: A Heuristic Based Approach (1990)

CONFERENCES ATTENDANCE:

- GECCO (Genetic and Evolutionary Computation Conference), 2021
- FOGA (Foundations of Genetic Algorithms Conference), 2021
- ECIR 2021 (Information Retrieval)
- The International Workshop on the Bees Algorithm and its Applications (BAA), 2021
- SAI2020 (Computational Intelligence), London, UK, 2021
- Computing Conference, London, UK, July 2019
- Computing Conference, London, UK, July 2018
- The 17th International Conference on Human-Computer Interaction (HCII 2015), Los Angeles, California, USA, August 2015.
- The 22nd International Symposium on Mathematical Programming (ISMP 2015), Pittsburgh, PA, USA, July 2015.
- The Science and Information Conference 2014 (SAI'14), London, UK, August 2014.
- The International Conference on Advanced Science and Technology (ICAT'14), Antalya Turkey, August 2014.
- The 2013 International Conference on Genetic and Evolutionary Methods. Las Vegas, Nevada, USA, July 2013.
- The 2012 International Conference on Frontiers in Education, Computer Science and Computer Engineering (FECS'12), Las Vegas, Nevada, USA, July 2012

- The 2013 International Conference on Artificial Intelligence (ICAI'11), Las Vegas, Nevada, USA, July 2011
- Metaheuristic International Conference (MIC2009), Hamburg, Germany, July 2009
- Genetic and Evolutionary Computation Conference (GECCO '07), London, UK, July 2007

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Associate editor in the Journal of King Saud University, Computer and Information Sciences.
- Member of IEEE and IEEE Computational Intelligence Society
- Member in the Association for Computing Machinery ACM
- Member of the European Association for Theoretical Computer Science (EATCS)
- Senior member of the International Association of Computer Science and Information Technology (IACSIT).
- Former member of the review board of the Journal of Applied Research in Higher Education, the official Journal of the HETL (Higher Education Teaching and Learning) Association.

RESEARCH GROUPS MEMBERSHIP

Member of the Bioinformatics Research Group in the CCIS

Member of the SKERG Research Group in the CCIS

Member of the CI research group in the CCIS

SERVICE ACTIVITIES

- Associate Professor at the CS department, CCIS (December 2018- Present)
- Vice chair for the CS department, CCIS (May 2015- May 2021)
- Assistant Vice Dean for Female Academic Affairs (2013)
- Member of the External Joint PhD Supervision Program Committee at KSU (2014-present)
- Vice head of the Alumni Unit at the College of Computer and Information Sciences (CCIS), KSU (2011-2012)
- Vice head of the Public Relations Unit at the CCIS (2012)
- Co-editor of the IT page in KSU newspaper (2011-2012)
- Member of the Manpower Committee at the Computer Science Department of the CCIS (2011-present)
- Member of the PhD committee at the Computer Science Department of the CCIS (2014-present)
- Member of the Masters Committee at the Computer Science Department of the CCIS (2012-2013)
- Member of the Bioinformatics MSc Program Development Committee at the Computer Science Department of the CCIS (2012)
- Member of the Career Day Committee at the CCIS (2012)
- Member of the Distinguished Faculty Rewarding Committee of the CCIS (2011)

- Member of the Scientific Gathering Committee, Center of Scientific and Medical Studies, KSU (2003-2004)

TRAINING

- Stress Management (2013)
- Conflict Management (2013)
- Virtual Class Rooms (2012)
- Learning Management System (LMS) (2012)
- Student Examination and Assessment using LMS (2012)
- Blended Learning Using Blackboard (2012)
- Student Outcomes Assessment (2012)
- Micro Teaching (2012)
- Effective University Teaching (2011)

PUBLICATIONS

1. Al-Rabiaah, S., Hosny, M., & AlMuhaideb, S. (2022). A Greedy Heuristic Based on Optimizing Battery Consumption and Routing Distance for Transporting Blood Using Unmanned Aerial Vehicles. *Electronics, 11(20)*, Special Issue Electronic Solutions for Artificial Intelligence Healthcare Volume II, 3399.
2. Al-Rabiaah, S.; Hosny, M.; AlMuhaideb, S. An Efficient Greedy Randomized Heuristic for the Maximum Coverage Facility Location Problem with Drones in Healthcare. *Appl. Sci.* 2022, *12*, 1403. https://doi.org/10.3390/app12031403
3. Amjaad Alhaqbani, Heba A. Kurdia, & Manar Hosnya. "Fish-Inspired Heuristics: A Survey of the State-of-the-Art Methods". *Archives of Computational Methods in Engineering*, PP 1-21. https://doi.org/10.1007/s11831-022-09711-0, (2022): 1-21
4. Eman Sulaiman Albilali, Nora Altwairesh, & Manar Hosny. "Constructing Arabic Reading Comprehension Datasets: Arabic WikiReading and KaifLematha", *Language Resources and Evaluation*, DOI: https://doi.org/10.1007/s10579-022-09577-5, 2022.
5. Abir Benabid Najjar, Arwa Rashed Al-Issa, & Manar Hosny. "Dynamic Indoor Path Planning for the Visually Impaired". *Journal of King Saud University - Computer and Information Sciences,* 2022, ISSN 1319-1578, https://doi.org/10.1016/j.jksuci.2022.03.004.
6. Albilali, Eman, Nora Altwairesh, and Manar Hosny. "What does BERT learn from Arabic machine reading comprehension datasets?." Proceedings of the Sixth Arabic Natural Language Processing Workshop. 2021.
7. Masmoudi, Mohamed Amine, Manar Hosny, and Çağrı Koç. "The fleet size and mix vehicle routing problem with synchronized visits." Transportation Letters (2021): 1-19.
8. A. Benabid Najjar, A. Al-Wabil, M. Hosny, W. Alrashed, A. Alrubaian, "Usability Evaluation of Optimized Single-Pointer Arabic Keyboards Using Eye Tracking", Advances in Human-Computer Interaction, vol. 2021, Article ID 6657155, 14 pages, 2021. https://doi.org/10.1155/2021/6657155
9. Benabid Najjar A., AlSahly N., AlShamass R., and Hosny M. "Toward the Optimization of the Region-based P300 Speller". Computers, Materials & Continua, 2021 https://www.techscience.com/cmc/v67n1/41181

10. Hosny M., Al-Malak S. (2020) "An Adaptive Genetic Algorithm Approach for Optimizing Feature Weights in Multimodal Clustering". In: Arai K., Kapoor S., Bhatia R. (eds) Intelligent Computing. SAI 2020. Advances in Intelligent Systems and Computing, vol 1229. Springer, Cham. https://doi.org/10.1007/978-3-030-52246-9_13
11. Mohamed Amine Masmoudi, Katarzyna Anna Kuzmicz, Erwin Pesch, Emrah Demir, Manar Hosny. "Container truck transportation routing as a Mixed Fleet Heterogeneous Dial-a-Ride Problem". MATEC Web Conf. 312 02005 (2020). DOI: 10.1051/matecconf/202031202005
12. Abeer Alhujaylan and Manar Hosny, "Hybrid Clustering Algorithms with GRASP to Construct an Initial Solution for the MVPPDP," Computers, Materials & Continua (CMC), vol.62, no.3, pp.1025-1051, 2020
13. Lubna Alhenak and Manar Hosny, "Genetic-Frog-Leaping Algorithm for Text Document Clustering", CMC, vol.61, no.3, pp.1045-1074, 2019
14. Masmoudi, Mohamed Amine, Manar Hosny, and Emrah Demir. "An Adaptive Large Neighborhood Search Heuristic for the Green Dial-a-Ride Problem." Solving Transport Problems: Towards Green Logistics (2020): Vol 26 No 1, PP 83-118
15. Masmoudi, Mohamed Amine, Manar Hosny, Emrah Demir, and Erwin Pesch. "Hybrid adaptive large neighborhood search algorithm for the mixed fleet heterogeneous dial-a-ride problem." Journal of Heuristics (2019): 1-36.
16. Abeer Alhujaylan and Manar Hosny, "A GRASP-based Solution Construction Approach for the Multi-Vehicle Profitable Pickup and Delivery Problem" International Journal of Advanced Computer Science and Applications(IJACSA), 10(4), 2019.
17. L. Alhenaki and M. Hosny, "A Genetic-Frog Leaping Algorithm for Large Dataset Document Clustering," *2019 IEEE/ACS 16th International Conference on Computer Systems and Applications (AICCSA)*, Abu Dhabi, United Arab Emirates, 2019, pp. 1-4, doi: 10.1109/AICCSA47632.2019.9035266.
18. Almaneea, Lamya Ibrahim, Hosny Manar (2018). A Two Level Hybrid Bees Algorithm for Operating Room Scheduling Problem. In Arai, Kohei, Kapoor, Supriya, Bhatia, Rahul (Eds.). Intelligent Computing. Proceedings of the 2018 Computing Conference, Vol 858. Springer Nature, Pages 272-290.
19. Hosny M. (2018) Metaheuristic Approaches for Solving University Timetabling Problems: A Review and Case Studies from Middle Eastern Universities. In: Rocha Á., Serrhini M. (eds) Information Systems and Technologies to Support Learning. EMENA-ISTL 2018. Smart Innovation, Systems and Technologies, vol 111. Springer, Cham, Pages 10-120.
20. Al-Nafjan, Abeer, Areej Al-Wabil, Abdulaziz AlMudhi, and Manar Hosny. "Measuring and monitoring emotional changes in children who stutter." Computers in biology and medicine102 (2018): 138-150.
21. Masmoudi, Mohamed Amine, Manar Hosny, Emrah Demir, Konstantinos N. Genikomsakis, and Naoufel Cheikhrouhou. "The dial-a-ride problem with electric vehicles and battery swapping stations." Transportation Research Part E: Logistics and Transportation Review 118 (2018): 392-420.
22. Mohamed Amine Masmoudi, Manar Hosny, Emrah Demir, Naoufel Cheikhrouhou, "A study on the heterogeneous fleet of alternative fuel vehicles: Reducing CO2 emissions by means of biodiesel fuel", Transportation Research Part D: Transport and Environment, Volume 63, August 2018, Pages 137–155

23. Mohamed Amine Masmoudi, Katarzyna Kuzmicz, Erwin Pesch, Manar Hosny, Emrah Demir "Container truck transportation routing as a Mixed Fleet Heterogeneous Dial-a-Ride Problem". EPPM2018, South Africa, July 2018.
24. Al-Negheimish, Sarah, Alnuhait, Fai, Albrahim, Hawazen, Al-Mogherah, Sarah, Alrajhi, Maha, & Hosny, Manar. An Intelligent Bio-Inspired Algorithm for the Faculty Scheduling Problem, (2018). International Journal of Advanced Computer Science and Applications, 9(5).
25. Al-Nafjan A., Hosny Manar., Al-Ohali Yousef., Al-Wabil Areej. Recognition of Affective States via Electroencephalogram Analysis and Classification. In: Karwowski W., Ahram T. (eds) Intelligent Human Systems Integration. IHSI 2018. Advances in Intelligent Systems and Computing, vol 722. Springer, Cham. Pages 242-248
26. Al-Nafjan, Abeer, Manar Hosny, Yousef Al-Ohali, and Areej Al-Wabil. "Review and Classification of Emotion Recognition Based on EEG Brain-Computer Interface System Research: A Systematic Review." Applied Sciences 7, no. 12 (2017): 1239.
27. Manar Hosny, Lubna Al Hinti, Sawsan Al Malak, "A Co-Evolutionary Framework for Adaptive Multidimensional Data Clustering", Intelligent Data Analysis, Volume 22(1), January (2018). Pages 77-101.
28. Abeer Al-Nafjan, Manar Hosny, Areej Al-Wabil and Yousef Al-Ohali, "Classification of Human Emotions from Electroencephalogram (EEG) Signal using Deep Neural Network". International Journal of Advanced Computer Science and Applications(IJACSA), 8(9), 2017. http://dx.doi.org/10.14569/IJACSA.2017.080955
29. Ghada Badr, Manar Hosny, Nuha Bintayyash, Eman Albilali, and Souad Larabi Marie-Sainte. "BeamGA Median: A Hybrid Heuristic Search Approach". International Journal of Biological, Biomolecular, Agricultural, Food and Biotechnological Engineering Vol:11, No:6, 2017
30. Mohamed Amine Masmoudi, Emrah Demir, Manar Hosny. "Metaheuristic approaches for the multi-period vehicle routing problem with synchronization constraints and refueling". Annual Workshop of the EURO Working Group on Vehicle Routing and Logistics optimization (VeRoLog 2017), 10-12 Jul 2017 Amsterdam (Netherlands)
31. Mohamed Amine Masmoudi, Manar Hosny, Kris Braekers, Abdelaziz Dammak, "Three effective metaheuristics to solve the multi-depot multi-trip heterogeneous dial-a-ride problem", Transportation Research Part E: Logistics and Transportation Review, Volume 96, December 2016, Pages 60-80, ISSN 1366-5545, (http://www.sciencedirect.com/science/article/pii/S1366554516304070
32. Badr, G., Hosny, M., Bintayyash, N., Albilali, E., & Larabi Marie-Sainte, S. "BeamGA Median: A Hybrid Heuristic Search Framework." Proceedings of the 2016 on Genetic and Evolutionary Computation Conference Companion. ACM, 2016.
33. Al-Malak, Sawsan, and Manar Hosny. "A Multimodal Adaptive Genetic Clustering Algorithm." Proceedings of the 2016 on Genetic and Evolutionary Computation Conference Companion. ACM, 2016.
34. Hosny, Manar, Rawan Alsarrani, and Abir Najjar. "Indoor Wheelchair Navigation for the Visually Impaired." Chapter HCI International 2015 - Posters' Extended Abstracts, Volume 529 of the series Communications in Computer and Information Science, pp. 411-417. Springer International Publishing, 2015.
35. Manar I. Hosny. "Bridging the Gap between Theory and Practice in the Vehicle Routing Research.", International Journal of Applied Mathematics, Electronics and Computers (IJAMEC), 2014, 2(3), pp. 15–18.

36. Alhuwaishel N, Manar H (2015) "A Hybrid Bees/Demon Optimization Algorithm for Solving the University Course Timetabling Problem". Proceedings of the 3rd NAUN International Conference on Mathematical, Computational and Statistical Sciences. Dubai, United Arab Emirates, February 22-24.
37. Nourah Alswaidan, Manar I. Hosny and Abir Benabid Najjar. "A Genetic Algorithm Approach for Optimizing a Single-Finger Arabic Keyboard Layout." In K. Arai et al. (eds.), Intelligent Systems in Science and Information 2014, Studies in Computational Intelligence 591, DOI 10.1007/978-3-319-14654-6_16. © Springer International Publishing Switzerland 2015.
38. Wafa Alrajhi, Manar Hosny, Areej Al-Wabil, and Arwa Alabdulkarim. "Human Factors in the Design of BCI-Controlled Wheelchairs". In M. Kurosu (Ed.): Human-Computer Interaction, Part II, HCII 2014, LNCS 8511, pp. 513–522, 2014. © Springer International Publishing Switzerland 2014.
39. Manar Hosny, Nourah AlSwaidan, Abir Benabid Najjar "An Optimized Single Finger Arabic Keyboard Layout". Proceedings of the Science and Information Conference 2014. London, UK, August 2014.
40. Manar Hosny, Mohrah AlOlayan "A Mutation Based Genetic Algorithm for Room and Proctor Assignment in Examination Scheduling". Proceedings of the Science and Information Conference 2014. London, UK, August 2014.
41. Amani Al Ahmadi, Taghreed Al Amri, and Manar Hosny "Time Efficient Demon Algorithm for Graph Coloring with Search Cut-off Property". Proceedings of the Science and Information Conference 2014. London, UK, August 2014.
42. Manar Hosny and Shameem Fatima. "Attitude of Students Towards Cheating and Plagiarism: University Case Study". Journal of Applied Sciences. Vol 14 (8), PP. 748-757 March 2014
43. D. Al-Omar, A. Al-Wabil, and M. Hosny, "Using Pupil Size Variation during Visual Emotional Stimulation in Measuring Affective States of Non Communicative Individuals," in Universal Access in Human-Computer Interaction. User and Context Diversity. vol. 8010, C. Stephanidis and M. Antona, Eds., ed: Springer Berlin Heidelberg, 2013, pp. 253-258
44. Manar Hosny. "A Heuristic Algorithm for the Faculty Assignment Problem". Journal of Communication and Computer, 10 (2013) 287-294. David Publishing.
45. Manar Hosny & Najla Al Turiki. "A Genetic Based Tool for the Nurse Rostering Problem", in Proceedings GEM'13 - The 2013 International Conference on Genetic and Evolutionary Methods.
46. Manar I. Hosny and Shameem Fatima. "Facebook in Education: Students, Teachers, and Library Perspectives". Journal of Computing, Vol. 4, Issue 6, June 2012
47. Manar Hosny. "TACO: An Automatic TAs to Courses Assignment Tool". In Proceedings of the EdMedia 2012 Conference, Denver, Colorado, USA
48. Hosny, M.I., Mumford, C.L. "Constructing initial solutions for the multiple vehicle pickup and delivery problem with time windows". Journal of King Saud University – Computer and Information Sciences (2012) 24, 59–69
49. Manar Hosny and Shameem Fatima "A Survey of Genetic Algorithms for the University Timetabling Problem". In International Proceedings of Computer Science and Information Technology, Vol. 13, 2011
50. Manar Hosny. "Heuristic Techniques for the Vehicle Routing Problem with Time Windows". In International Proceedings of Computer Science and Information Technology, Vol. 13, 2011.
51. M. I. Hosny. "Comparing Genetic Algorithms and Simulated Annealing for Solving the Pickup and Delivery Problem with Time Windows". In H. R. Arabnia, D. de la Fuente, E. B. Kozerenko, and J. A. Olivas, editors, Proceedings of the 2011 International

Conference on Artificial Intelligence, ICAI'11, Las Vegas, Nevada, USA, Vol. II, pages 513–CSREA Press, July 2011

52. Manar I. Hosny and Christine L. Mumford "Solving the One-Commodity Pickup and Delivery Problem Using an Adaptive Hybrid VNS/SA Approach" In Parallel Problem Solving from Nature – PPSN XI, Lecture Notes in Computer Science, Vol. 6293/2011, pages 189-198. DOI: 10.1007/978-3-642-15871-1_20.
53. Manar I. Hosny and Christine L. Mumford: "An adaptive hybrid VNS/SA approach to the one-commodity pickup and delivery problem". GECCO (Companion) 2010: 2079-2080
54. Manar I. Hosny and Christine L. Mumford "The Single Vehicle Pickup and Delivery Problem with Time Windows: Intelligent Operators for Heuristic and Metaheuristic Algorithms". Journal of Heuristics, Special Issue on Recent Advances in Metaheuristics, Vol. 16, No 3, June 2010. DOI:10.1007/s10732-008-9083-1.
55. Manar I. Hosny and Christine L. Mumford "Investigating Genetic Algorithms for Solving the Multiple Vehicle Pickup and Delivery Problem with Time Windows" In MIC2009: Proceedings of the Metaheuristic International Conference, July 2009.
56. Manar I. Hosny and Christine L. Mumford "New Solution Construction Heuristics for the Multiple-Vehicle Pickup and Delivery Problem with Time Windows" In MIC2009: Proceedings of the Metaheuristic International Conference, July 2009
57. Manar I. Hosny and Christine L. Mumford "Single Vehicle Pickup and Delivery with Time Windows: Made to Measure Genetic Encoding and Operators". In GECCO '07: Proceedings of the 2007 GECCO conference companion on Genetic and evolutionary computation, pages 2489-2496
58. Ashraf M. Abdelbar, and Manar I. Hosny, "A Self-Adaptive Evolutionary Algorithm Applied to Bayesian Networks," Proceedings ISCA International Conference on Computers and Their Applications, Honolulu, Hawaii, 2007, pp. 118-122
59. Ashraf M. Abdelbar, and Manar I. Hosny, "Finding Most Probable Explanations using a Self-Adaptive Hybridization of Genetic Algorithms and Simulated Annealing", Proceedings 10th WSEAS International Conference on Computers, July 13-15, 2006, Vouliagmeni, Greece, pp. 800-806
60. Ashraf M. Abdelbar, and Manar I. Hosny, "Probabilistic Explanation with Genetic Algorithms and Simulated Annealing," WSEAS Transactions on Computers, Vol. 5, No. 10, October 2006, pp. 2162-2168
61. Ashraf M. Abdelbar and Manar I Hosny, "An Adaptive Hybrid Genetic Annealing Technique Applied to Bayesian Networks," Proceedings of ANNIE-04, ASME Press, New York, Vol. 14, pp. 45-50, 2004. ISBN: 0-7918-0228-0.