

CURRICULUM VITAE

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1. Personal Data

Date of Birth: 26 November 1970

Nationality: Jordanian

2. Education

- Ph.D. (Computer Science) May 2001, University of Central Florida, Orlando, FL, USA
- M.S. (Computer Science) May 1996, Montclair State University, Montclair, NJ, USA
- B.S. (Computer Science) Aug. 1992, Montclair State University, Montclair, NJ, USA

3. Ph.D. Dissertation

Computing a diameter-constrained minimum spanning tree, University of Central Florida, Orlando, FL, USA

4. Employment

Academic and Professional Positions

- Associate Professor, Department of Computer Science, Al-Zaytoonah University of Jordan, Amman, Jordan
14 March 2016 – present
- Assistant Professor, Department of Computer Science / Department of Multimedia Systems, Al-Zaytoonah University of Jordan, Amman, Jordan
1 July 2001 – 14 March 2016



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Curriculum Vitae Form - Procedures of Appointment and Promotion Committee

- Graduate Teaching Assistant, School of Computer Science, University of Central Florida, Orlando, FL, USA
Jan. 1997 – May 2001
- Development Co-Op, ImageSoft Technologies (Fiserv), Maitland, FL, USA
June 1999 – Dec. 1999
- Graduate Assistant, Tutorial Center, Montclair State University, Montclair, NJ, USA
Sept. 1992 – May 1996

Administrative Positions

- Chair of the Department of Multimedia Systems, Faculty of Science and Information Technology, Al-Zaytoonah University of Jordan, Amman, Jordan
Oct. 2010 to Oct. 2013
- Coordinator, Joint BSc Computer Studies (Honors) Program (with the University of Sunderland, Sunderland, UK), Faculty of Science and Information Technology, Al-Zaytoonah University of Jordan, Amman, Jordan
Oct. 2004 to May 2007

5. Research Interests

Image Processing (Encryption and Encoding)

6. Honors and Awards

- Dedicated Service and Valuable Contribution Award, ICIT 2017
- Appreciation Award, JEEIT 2019

7. Fellowships and Scholarships

- Graduate Teaching Assistantship (Scholarship), School of Computer Science, University of Central Florida, Orlando, FL, USA
Jan. 1997 – May 2001
- Development Co-Op (Fellowship), ImageSoft Tech. (Fiserv), Maitland, FL, USA
June 1999 – Dec. 1999
- Graduate Assistantship (Scholarship), Tutorial Center, Montclair State University, Montclair, NJ, USA
Sept. 1992 – May 1996

9. Teaching Experience

- *Graduate Courses*
Advanced Operating Systems, Advanced Algorithms Design and Analysis
- *Undergraduate Courses*
Algorithms, Data Structures, Operating Systems, Computation Theory, Computer Networks, Image Processing, Computer Graphics, Color Spectrum, Object Oriented Programming, Design of Programming Languages, Information Technology & Society, Compiler Design, Systems Software Design



10. Supervision of Graduate Research

- Manal A. Mizher, A flexible selective cryptosystem for meshed 3D textured animated objects and images using cellular automata, 2020. (Ph.D. Co-Supervisor, Universiti Kebangsaan Malaysia, Malaysia)
- Mohammad Abu Awwad, Automatic Segmentation and Detection System for Varicocele in Supine Position on Ultrasound Images, 2020. (Master's Co-Supervisor, Jordan University of Science and Technology, Jordan)
- Asma H.S. Al-Sanahni, Face Identification from a Partial Face View, 2018. (Master's Co-Supervisor, ZUJ, Jordan)
- Wafaa H.S. Alshoura, A Novel Image Cryptosystem Based on a 3D Chaotic Hash Function, 2017. (Master's Supervisor, ZUJ, Jordan)
- Dyala R.S. Ibrahim, A Secure Visual Cryptography System For Identification Cards, 2016. (Master's Co-Supervisor, ZUJ, Jordan)
- Ahmad B. Marzouq, A Novel Automatic Parallelization Model for Sequential Code using Python Programming Language, 2015. (Master's Co-Supervisor, ZUJ, Jordan)
- Ahmad A. Mazhar, Complexity Reduction Techniques for H.264 Video Coding, 2012. (Ph.D. Local Supervisor, De Montfort University, UK)
- Ahmad Abu Sukhon, An Investigation Into Improving the Load Balance and Query Throughput of Distributed IR Systems, 2009. (Ph.D. Local Supervisor, University of Sunderland, UK)

11. Grants

- M. Abdallah, M. Muhairat, A. Althunibat and **A. Abdalla**, *A New Quality Model for Measuring Big Data Applications*, 4/2019–10/2020. (JOD 7,168 – funded by Al-Zaytoonah University of Jordan, Amman, Jordan).
- **A. Abdalla**, M. Salah and S. Khalaf, *Load-Balancing of Virtual Tours in Distributed Systems*, 5/2012 – 7/2014. (JOD 60,954 – funded by Al-Zaytoonah University of Jordan, Amman, Jordan).
- **A. Abdalla** and A. Abusukhon, *Parallel Information Retrieval*, 7/2007–7/2008. (JOD 11,000 – funded by Al-Zaytoonah University of Jordan, Amman, Jordan).

12. Membership of Committees

- **National and International**
 - Served on the Organizing Committee, Technical Committee, and Editing Committee of the biannual International Conference on Information Technology, at ZUJ, Amman, Jordan from 2003 to 2017
 - Served as a Track Chair for the 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology



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- **University**

- A member of the Board of the Faculty of Science & IT, from 10/2009 to 10/2013 and 10/2016 to 10/2017
- The Head of the Computer-Science Course-Plan & References Committee from 10/2013 to 10/2014
- The Head of the Multimedia Course-Plan & References Committee from 10/2014 to 10/2017
- A member of the Computer-Science Academic Advising, Training & Alumni Follow-Up Committee from 10/2017 to 10/2019
- A member of the Computer-Science Examination & Evaluation Committee from 10/2017 to present
- A member of the Faculty of Science & IT Quality Assurance Committee from 10/2003 to 10/2005 and 10/2019 to present

13. Professional and Scientific Meetings

Scientific Meetings Organized

- Served as a Track Chair for the 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology.
- Served on the Organizing Committee, Technical Committee, and Editing Committee of the biannual International Conference on Information Technology, at ZUJ, Amman, Jordan from 2003 to 2017.
- Organized a workshop on using multimedia in advertising at ZUJ in March 2013.

Participation in Scientific Meetings

- World Conference on Smart Trends in Systems, Security and Sustainability (WS4), London, UK, 30-31 October 2018.
- International Conference on Information Technology, Amman, Jordan, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019, where the 2019 conference was a part of the 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology.
- Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Baton Rouge, LA, USA, Feb. 26 – March 2, 2001.
- Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, FL, USA, March 13-18, 2000.
- Southeastern International Conference on Combinatorics, Graph Theory, and Computing, Boca Raton, FL, USA, March 8-12, 1999.

14. Participation in or organization of curricular and/or extra-curricular activities

- Open day for students, ZUJ, 2011.
- Alumni reunion, ZUJ, 2012 and 2017.
- Seminar on Cinema 4D for students, ZUJ, 2013.
- Faculty members' meeting with multimedia companies, ZUJ, 2017.



15. Publications

A. Journal Articles:

1. M. Abdallah, M. Muhairat, A. Althunibat and **A. Abdalla**, *Big Data Quality: Factors, Frameworks, and Challenges*, COMPUSOFT: An International Journal of Advanced Computer Technology, vol. 9(8), pp. 3785-3790, 2020.
<https://ijact.in/index.php/ijact/article/view/1164/767>
2. **A. Abdalla**, A. Al-Sanhani and A. Tamimi, *Face recognition from a partial face view by partitioning and rotating facial images*, COMPUSOFT: An International Journal of Advanced Computer Technology, vol. 8(12): pp. 3501-3506, 2019.
<https://ijact.in/index.php/ijact/article/view/1039/708>
3. Manal Mizher, R. Sulaiman, **A. Abdalla** and Manar Mizher, *An Improved Simple Flexible Cryptosystem for 3D Objects with Texture Maps and 2D Images*, Journal of Information Security and Applications, vol. 47: pp. 390-409, 2019.
<https://doi.org/10.1016/j.jisa.2019.06.005>
4. Manal Mizher, R. Sulaiman, **A. Abdalla** and Manar Mizher, *A simple flexible cryptosystem for meshed 3D objects and images*, Journal of King Saud University - Computer and Information Sciences, 2019. (in press)
<https://doi.org/10.1016/j.jksuci.2019.03.008>
5. M. Alia, A. Hnaif, **A. Abdalla** and E. Abu Maria, *An improved authentication scheme based on graphical passwords*, ICIC Express Letters, vol. 12(8): pp. 775-783, 2018.
<http://www.icicel.org/ell/contents/2018/8/el-12-08-05.pdf>
6. A. Mazhar and **A. Abdalla**, *Trade-off of frame-rate and resolution in online game streaming*, Journal of Computer Science, vol. 13(10): pp. 505-513, 2017.
<http://thescipub.com/abstract/10.3844/ofsp.11466>
7. A. Almghawish, **A. Abdalla** and A. Marzouq, *An automatic parallelizing model for sequential code using Python*, International Journal of Advanced Research in Computer Science and Software Engineering, vol. 7(3): pp. 276-282, 2017.
http://www.ijarcsse.com/docs/papers/Volume_7/3_March2017/V7I3-01324.pdf
8. **A. Abdalla**, M. Abdallah and M. Salah, *A brief program robustness survey*, International Journal of Software Engineering & Applications, vol. 8(1): pp. 1-10, 2017.
<http://airconline.com/ijsea/V8N1/8117ijsea01.pdf>
9. A. Mazhar and **A. Abdalla**, *Joint reference frame inter-mode selection for fast H.264 video coding*, Signal, Image and Video Processing, vol. 10(4): pp. 617-623, 2016.
<http://link.springer.com/article/10.1007/s11760-015-0785-1>
10. Manar A. Mizher, S.H. Al-Sharaeh, M.C. Ang, **A. Abdalla** and Manal A. Mizher, *Centroid dynamic sink location for clustered wireless mobile sensor networks*, Journal of Theoretical and Applied Information Technology, vol. 73(3): pp. 481-491, 2015.
<http://www.jatit.org/volumes/Vol73No3/18Vol73No3.pdf>
11. **A. Abdalla**, A. Mazhar, M. Salah and S. Khalaf, *Comparative study of compression techniques for synthetic videos*, International Journal of Multimedia & Its Applications, vol. 6(2): pp. 1-10, 2014.
<http://airccse.org/journal/jma/6214ijma01.pdf>
12. A. Tamimi, **A. Abdalla** and O. Al-Allaf, *Hiding an image inside another image using variable-rate steganography*, International Journal of Advanced Computer Science and Applications, vol. 4(10): pp. 18-21, 2013.
http://thesai.org/Downloads/Volume4No10/Paper_4-Hiding_an_Image_inside_another_Image.pdf



13. **A. Abdalla**, *Variable-rate steganography using RGB stego-images*, European Scientific Journal, vol. 9(15): pp. 62-67, 2013.
<http://eujournal.org/index.php/esj/article/view/1090/1124>
14. **A. Abdalla** and A. Tamimi, *Algorithm for image mixing and encryption*, International Journal of Multimedia & Its Applications, vol. 5(2): pp. 15-21, 2013.
<http://airccse.org/journal/ima/5213ijma02.pdf>
15. A. Abusukhon, M. Oakes and **A. Abdalla**, *Performance analysis of distributed IR systems: document-based, term-based and hybrid partitioning*, International Journal of Information Studies, vol. 1(1): pp. 40-49, 2009.
<http://www.istudies.net/ojs/index.php/journal/article/view/27/27>
16. A. Yahya and **A. Abdalla**, *A shuffle image-encryption algorithm*, Journal of Computer Science, vol. 4(12): pp. 999-1002, 2008.
<http://dx.doi.org/10.3844/jcssp.2008.999.1002>
17. M. Nabulsi and **A. Abdalla**, *The relationship between exclusive-or and the unique existential quantifier*, Journal of Computer Science, vol. 4(9): pp. 741-743, 2008.
<http://dx.doi.org/10.3844/jcssp.2008.741.743>
18. M. Nabulsi and **A. Abdalla**, *A method of deductive logical inference proofs*, Journal of Computer Science, vol. 4(4): pp. 345-348, 2008.
<http://dx.doi.org/10.3844/jcssp.2008.345.348>
19. A. Yahya and **A. Abdalla**, *Implementation of matrix folding in multimedia transmission*, Information Technology Journal, (Formerly: Pakistan J. Information & Technology), vol. 2(2): pp. 154-158, 2003.
<http://www.scialert.net/gredirect.php?doi=itj.2003.154.158&linkid=pdf>
20. A. Yahya, **A. Abdalla** and K. Al-Qawasmi, *Compressing video using matrix folding*, Information Technology Journal, (Formerly: Pakistan J. Information & Technology), vol. 2(1): pp. 61-64, 2003.
<http://www.scialert.net/gredirect.php?doi=itj.2003.61.64&linkid=pdf>
21. **A. Abdalla** and N. Deo, *Random-tree diameter and the diameter-constrained MST*, International Journal of Computer Mathematics, vol. 79(6): pp. 651-663, 2002.
<http://dx.doi.org/10.1080/00207160211289>
22. **A. Abdalla**, N. Deo and P. Gupta, *Random-tree diameter and the diameter-constrained MST*, Congressus Numerantium, vol. 144, pp. 161-182, 2000.
23. **A. Abdalla**, N. Deo and R. Fanceschini, *Parallel heuristics for the diameter-constrained MST problem*, Congressus Numerantium, vol. 136: pp.97-118, 1999.
24. **A. Abdalla**, N. Deo, N. Kumar and T. Terry, *Parallel computation of diameter-constrained MST and related problems*, Congressus Numerantium, vol. 126: pp. 131-155, 1997.

B. Conference Proceedings / Proceedings in Edited Books:

1. A. Tamimi, **A. Abdalla**, M. Abdallah, *Utilizing Quality Measures in Evaluating Image Encryption Methods*, The 24th Int'l Conf on Image Processing, Computer Vision, & Pattern Recognition (ICCV'20), Las Vegas, NV, USA. 27-30 July 2020. Printed in Advances in Computer Vision and Computational Biology [eds. H.R. Arabnia et al.], Springer, 2020.
<https://americancse.org/events/csce2020/conferences/iccvc20>
2. A. Tamimi, A. Abu Hammad, **A. Abdalla** and O. Al-Allaf, *A System for the Detection and Identification of Objects and Their Distances to Aid Blind People*, 23rd International Conference on Image Processing, Computer Vision, & Pattern Recognition (ICCV'19), Las Vegas, NV, USA. 29 July – 1 August 2019.
<https://americancse.org/events/csce2019/conferences/iccvc19>



3. A. Tamimi, **A. Abdalla** and H. Abu-Ryash, *An Emergency Vehicle Navigation Algorithm Based on Subgraphs*, 18th International Conference on Wireless Networks (ICWN'19), Las Vegas, NV, USA. 29 July – 1 August 2019.
<https://americancse.org/events/csce2019/conferences/icwn19>
4. M. Abdallah and **A. Abdalla**, *Using Clause Slicing as Program Robustness Measurement Technique*, 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT), pp. 19-22, Amman, Jordan. 8-11 April 2019.
<https://ieeexplore.ieee.org/document/8717424>
5. **A. Abdalla**, M. Osman, H. AlShawabkah, O. Rumman and M. Mherat, *A review of nonlinear image-denoising techniques*, 2018 Second World Conference on Smart Trends in Systems, Security and Sustainability (WS4), pp. 96-100, London, United Kingdom. 30-31 October 2018.
<https://ieeexplore.ieee.org/document/8611606>
6. A. Tamimi and **A. Abdalla**, *A variable circular-shift image-encryption algorithm*, In Proceedings of the International Conference on Image Processing, Computer Vision, and Pattern Recognition (ICPV '17), pp. 33-37, Las Vegas, NV, USA. 17-20 July 2017.
<https://csce.ucmss.com/cr/books/2017/LFS/CSREA2017/IPC3422.pdf>
7. D. Ibrahim, A. Tamimi and **A. Abdalla**, *Performance Analysis of Biometric Recognition Modalities*, International Conference on Information Technology (ICIT'2017), pp. 980-984, Amman, Jordan. 17-18 May 2017.
<http://ieeexplore.ieee.org/document/8079977>
8. A. Tamimi and **A. Abdalla**, *An image encryption algorithm with XOR and S-box*, In The 19th International Conference on Image Processing, Computer Vision, and Pattern Recognition (ICPV '15), pp. 166-169, Las Vegas, NV, USA. 27-30 July 2015.
<http://worldcomp-proceedings.com/proc/p2015/IPC2937.pdf>
9. A. Tamimi and **A. Abdalla**, *An audio shuffle-encryption algorithm*, In The International Conference on Internet and Multimedia Technologies (ICIMT '14), (Printed in Proceedings of the World Congress on Engineering and Computer Science 2014), Vol I: pp. 409-412, San Francisco, CA, USA. 22-24 October 2014.
http://www.iaeng.org/publication/WCECS2014/WCECS2014_pp409-412.pdf
10. A. Tamimi and **A. Abdalla**, *A double-shuffle image-encryption algorithm*, In The 2012 International Conference on Image Processing, Computer Vision, and Pattern Recognition (ICPV '12), Las Vegas, NV, USA. 16-19 July 2012. Printed in Image Processing, Computer Vision, and Pattern Recognition [eds. H.R. Arabnia and L. Deligiannidis], pp. 496-499, CSREA Press, 2012.
<http://weblidi.info.unlp.edu.ar/worldcomp2012-mirror/p2012/IPC2140.pdf>
11. A. Yahya and **A. Abdalla**, *An AES-based encryption algorithm with shuffling*, In The 2009 International Conference on Security and Management (SAM '09), Las Vegas, NV, USA. 13-16 July 2009. Printed in Security and Management [eds. H.R. Arabnia and K. Daimi], pp. 113-116, CSREA Press, 2009.
<http://www.bibsonomy.org/bibtex/2188e14cd290b3483a24c4075d1b41c0e/dblp>
12. A. Abusukhon, M.P. Oakes, M. Talib and **A. Abdalla**, *Comparison between document-based, term-based and hybrid partitioning*, In First International Conference on the Applications of Digital Information and Web Technologies (ICADIWT '08), Czech Republic, 4-6 August 2008. Printed in Applications of Digital Information and Web Technologies [eds. V. Snašel, J. Pokorný, P. Pichappan, E. El-Qawasmeh and E. Ariwa], pp. 90-95, IEEE, 2008.
<http://dx.doi.org/10.1109/ICADIWT.2008.4664324>
13. N. Deo and **A. Abdalla**, *Computing a diameter-constrained minimum spanning tree in parallel*, In The 4th Italian Conference on Algorithms and Complexity, CIAC 2000, Rome, Italy, 1-3 March 2000. Printed in Algorithms and Complexity, Lecture Notes in Computer Science [eds. Bongiovanni, Gambosi, and Petreschi], no. 1767, pp. 17-31, Springer-Verlag, New York, 2000.
<http://www.springer.com/us/book/9783540671596>